

Statewide Multimodal Transportation Plan



MINNESOTA **GO**

Policy Panel Survey and Discussion Forum

Final Report (November 2021)

Research Objectives

MnDOT commissioned a statewide study with a representative sample of Minnesotans to aid policy decision-making and related messaging for the **Statewide Multimodal Transportation Plan**.

- The study was conducted by **A^Z Marketing Research, Inc.**, in conjunction with **HDR, Inc.**

The goals were to understand:

- Top-of-mind perspectives and preferences related to MnDOT goals and targets for:
 - Commuter delays
 - Greenhouse gas emissions
 - Vehicle Miles Travelled reduction
- Attitudes about:
 - Technology and innovation
 - Transportation modes/options
 - Community engagement, safety, and equity
 - Trade offs and priorities

Research Phases

This study involved two phases:

1. A quantitative online survey with a sample of 600+ individuals living in MN.
2. A qualitative follow-up online discussion with approximately 50 individuals using a research bulletin board platform, which is a moderated discussion that takes place over time.

Phase 1: Quantitate Survey

Phase 1 Approach

This quantitative online survey was conducted in **October 2021**.

The criteria for qualification included the following:

- Being 18+
- Living in Minnesota

Two sources were used to generate the sample:

- A research panel which provided a representative sample of n=653 respondents across the state.
- To increase representation within harder-to-reach segments, community-based organizations were provided unique survey links and encouraged to invite individuals from their communities. This contributed an additional n=12 respondents to the overall base.

The data was weighted to align sample with the demographic and geographic characteristics of the state.

The ending sample is comprised of n=665 respondents with this breakdown using weighted data:

- n=375 in the Metro District
- n=290 in Greater MN Districts

At the end of the survey, participants were told about an opportunity to participate in a follow-up discussion (phase 2) to dig deeper into some of the content areas.

- This discussion was also conducted online, using a research platform.
- The results from that phase are presented under separate report.

NOTE: unweighted total is n=665 with n=413 Metro and n=252 GM

Reporting Structure

The results presented here show the statewide perspective first and then call out meaningful differences:

- Between Metro and Greater MN
- Across key demographics (race/ethnicity, gender, age, etc.)
- By mode of transportation

Phase 1 Highlights (GOALS & TARGETS)

Commuter delays: Minnesota statute sets a goal for MnDOT to “provide a reasonable travel time for commuters.” MnDOT measures progress by setting and assessing a target; the reference point is the average delay for a person while traveling in the Twin Cities Metro Area. Two metrics were evaluated in this survey:

- An average of 40 hours of delay per person each year
- An average of 9 minutes of delay per person each weekday

The results from the survey show:

- Though equivalent, the delay target of 9 minutes/weekday comes across as more reasonable than 40 hours/year.
- When asked directly, people also find minutes/weekday easier to understand than hours/year.
- Over six-in-ten (67%) consider it a reasonable amount of time for a person traveling in the Twin Cities Metro Area to be delayed on average.

Phase 1 Highlights (GOALS & TARGETS)

Greenhouse gas emissions: Minnesota statute sets a goal for MnDOT to “reduce greenhouse gas emissions from the states transportation sector.” Transportation is the largest source of greenhouse gas emissions in Minnesota and nationally.

- MnDOT *previously* set a target, consistent with the Minnesota Next Generation Energy act, to reduce transportation greenhouse gas emissions by 30% by the year 2025 when compared to 2005 levels.
- Respondents were asked about how to align additional goals.

The results from the survey show:

- There is general agreement with setting a target for GHG emission reduction, but not necessarily how to align it.
- While there is limited familiarity with Minnesota’s Next Generation Energy Act, 37% are in support of its proposed reduction goals (30% by 2025 and 80% by 2050).
- Roughly one-third (32%) are in favor of setting MN’s goals in line with the more extreme Paris Agreement (50% reduction by 2030 and net zero by 2050).
- Only one in five (19%) oppose setting a goal, but another 13% need more information or are unsure.

Phase 1 Highlights (GOALS & TARGETS)

VMT reduction: One way to support a reduction in greenhouse gas emissions is to increase transportation options that make it easier for people to travel fewer miles in cars, SUVs, trucks and motorcycles (referred to as “vehicle miles”).

- An external committee suggested MnDOT set a goal to reduce overall vehicle miles traveled to measure progress toward the overall reduction in greenhouse gas.
- Respondents were asked about this type of goal and how it might be configured.

The results from the survey show:

- Nearly six in ten (58%) consider a 20% reduction in VMT by 2050 to be a reasonable goal.
 - Roughly one-quarter (26%) do not feel it’s reasonable and the rest (16%) are unsure.
- About half of respondents (47%) feel a VMT reduction goal should vary throughout the state; within that group, the majority agree on implementing goals ‘more in larger urban areas.’
 - This equates to roughly three in ten (29%) of the total population.
- The next largest group is very similar in size (at 28% of the total) and it feels the goal should be consistent across the state.
- 16% indicate they do not support such a goal and 9% are unsure.

Phase 1 Highlights (ATTITUDES & OPINIONS)

Technology and innovation:

- While there is widespread support for investment in CAV development, even more (nearly all) agree that human drivers should also benefit from future transportation planning.
- Roughly two-thirds would like MN to take a lead role in developing transportation technology, like CAV.

Transportation modes/options:

- Roughly three-quarters agree that Greater MN could use better transit options and that teleworking should be supported.
- About the same proportion would support improvements that increase the ease and comfort of walking/bicycling.

Community engagement, safety, and equity:

- The need for early input from communities and fairness and justice in transportation systems are agreed upon by nearly 90%.
- Over 8 in 10 agree that decision makers should include those impacted by such decisions.

Phase 1 Highlights (ATTITUDES & OPINIONS)

Trade offs and priorities:

- Though 90% agree that existing infrastructure should take priority over new projects, there is no consensus regarding what would make rough roads acceptable.
- There is variation in opinion regarding whether drivers and parking should take priority over designs centering public transit and a reduced need for a car.
 - When push comes to shove, more respondents lean toward favoring driving.
 - Most have soft preferences for one or the other – which might explain how some can agree with emission reduction goals and still want driving ease.
 - In addition, when goals and targets are vague, and do not explicitly state how they will impact people personally, they are easier to agree with.
 - These types of issues and more are explored in the in-depth discussion phase (phase 2) of this project.

Phase 1 Highlights (KEY DIFFERENCES)

KEY DIFFERENCES: Significant differences were explored across key sub-groups and the most substantive are summarized here.

Age:

- Individuals younger than 55 are more likely than older individuals to support actions that would benefit modes other than solo driving (e.g., walking, bicycling or public transit) or potentially make vehicle travel less convenient or desirable.
- The youngest individuals (<35) add an interesting perspective:
 - More favor the slightly more conservative Next Generation Act over the Paris Agreement.
 - They are more sensitive to the transportation needs of Greater MN.
 - They are more likely to have been impacted personally by a lack of safe/affordable transportation options.

Phase 1 Highlights (KEY DIFFERENCES)

Gender:

- Women are more likely than men to support:
 - Improvements that benefit modes other than vehicles, are also stronger supporters of getting community input upfront, and customized goals.
 - Actions that lead to safer travel.
 - To have been impacted personally by a lack of safe/affordable transportation options.
- Men are more likely than women to:
 - Disagree that there is a need for better public transit.
 - Not support a VMT goal of any kind and to disagree that transportation agencies should support teleworking.

Race/Ethnicity:

- Individuals who classify themselves as something other than only white (e.g., Hispanic, Black, American Indian or Asian) are more likely than white individuals to support actions that would have benefits other than increasing the ease of driving.
- They also showed the most interest in participating in a follow-up discussion about transportation issues.

Phase 1 Highlights (KEY DIFFERENCES)

Region:

- There were relatively few substantive differences by whether individuals lived in the Metro District or Greater MN. Among the few that surfaced:
 - Those living in the Metro District were more likely to prioritize reliable travel times over smooth roads.
 - Those in Greater MN were less sure about the need for more/better *intercity* bus and rail options.

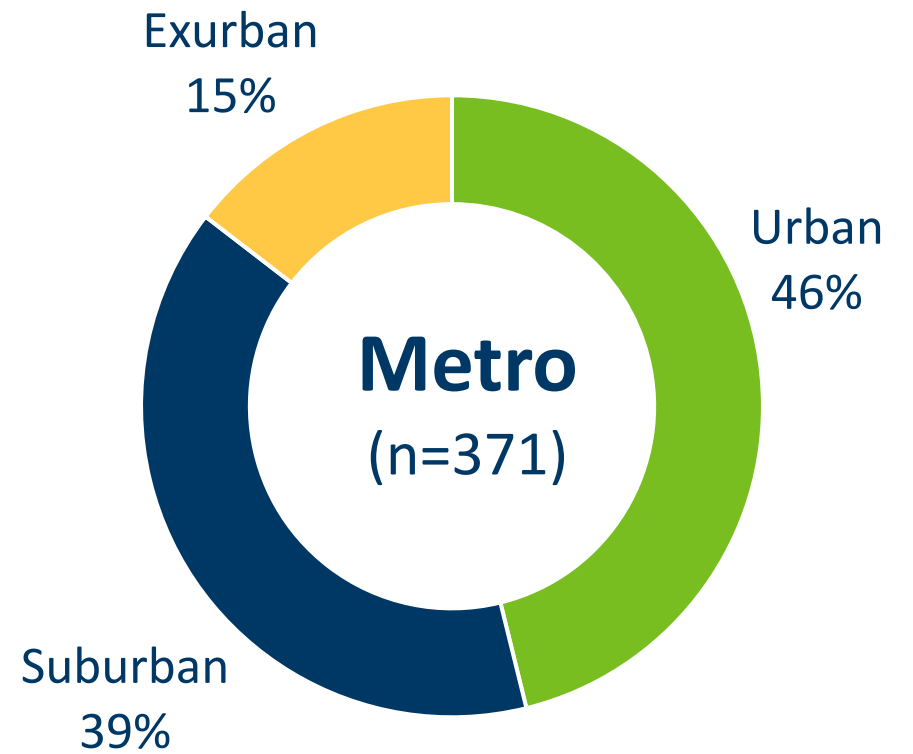
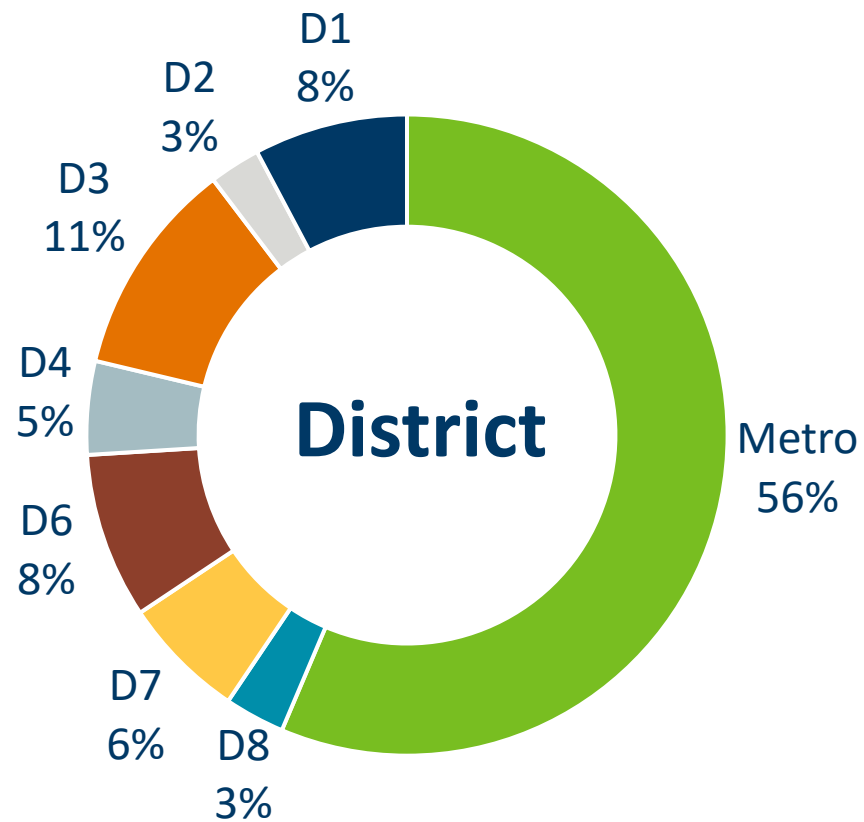
Modes:

- Those who regularly drive alone in their vehicle are the least open to investing in other options, even cleaner vehicles.
 - For example, they have the lowest level of support for EV infrastructure, intercity transit options, and improvements for bicycling.
 - They are also less supportive of returning excess land back to tribal nations.

Phase 1 Respondents

Demographics

Geography

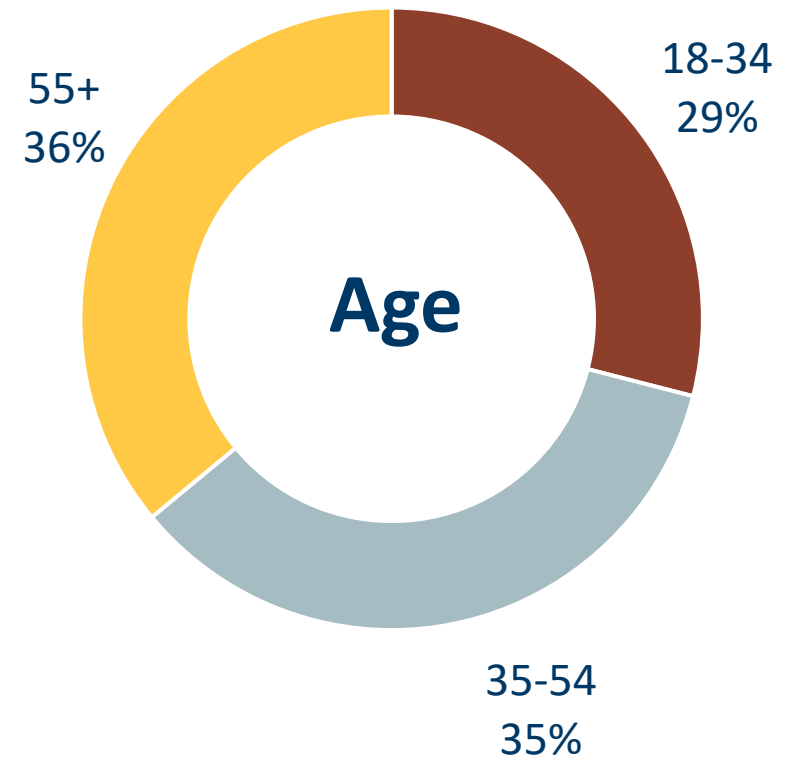
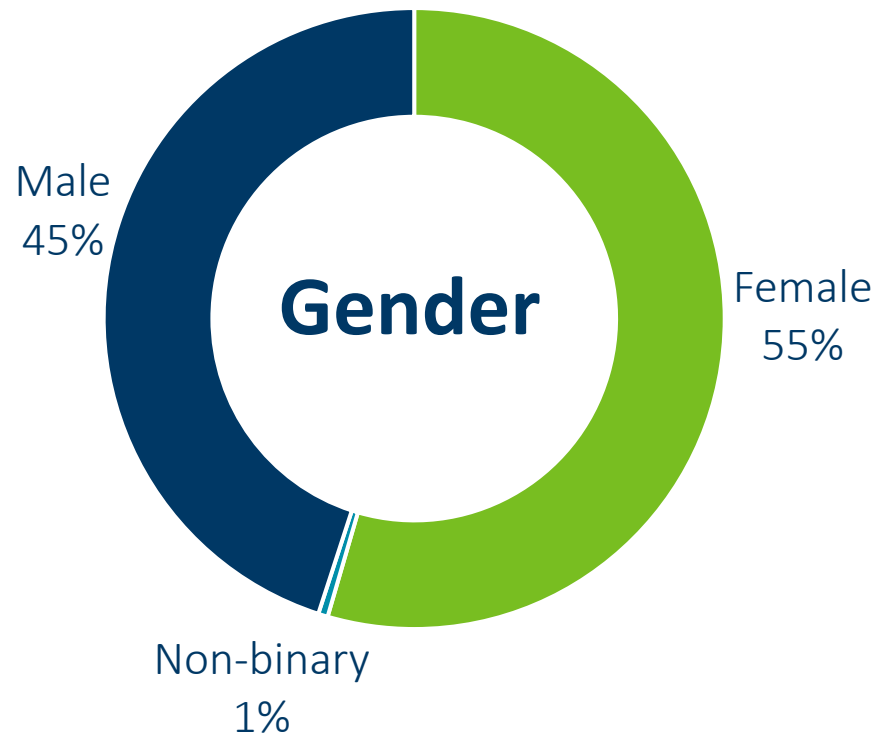


Race/Ethnicity

Race/Ethnicity	Metro (n=375)	Greater Minnesota (n=290)	Total (n=665)
American Indian or Alaska Native	2%	2%	2%
Asian	7%	1%	4%
Black or African American	8%	2%	5%
Hispanic	6%	5%	6%
White	81%	94%	87%
White only / non-Hispanic	74%	89%	81%

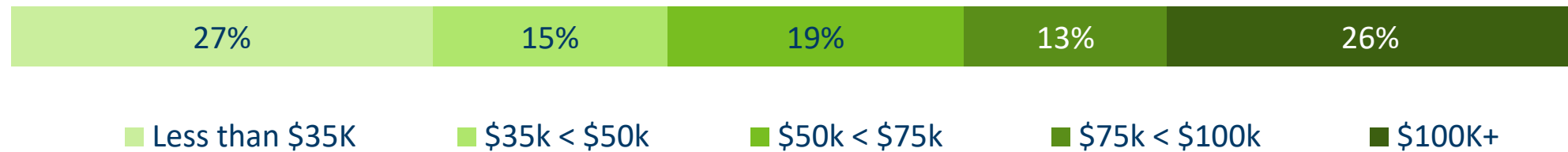
NOTE: Race was asked as a multiple response category (i.e. check all that apply) with a Hispanic overlay. The results shown here are the percentage who classify themselves as any of these races (as the only or as one of multiple races).

Gender and Age

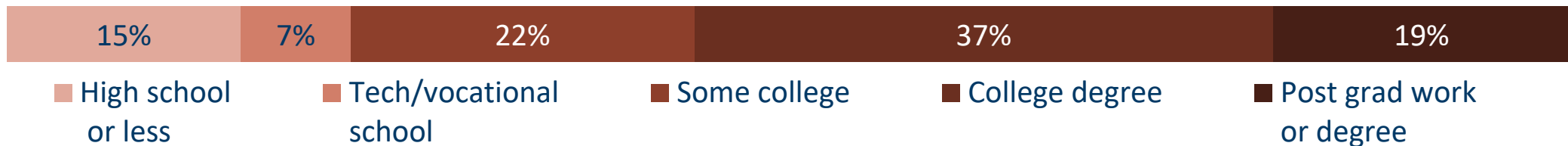


Income and Education

Household Income

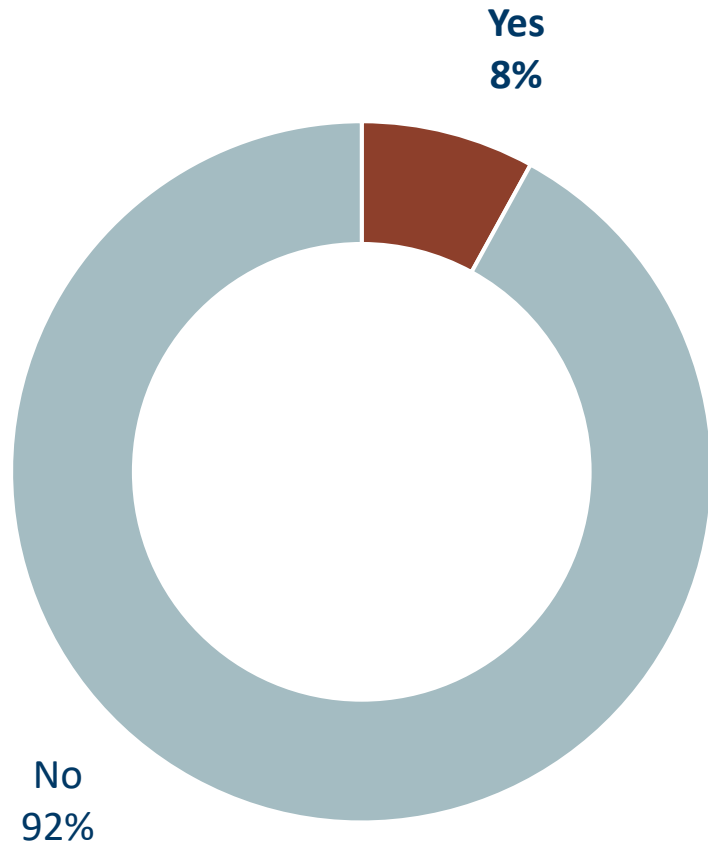


Education

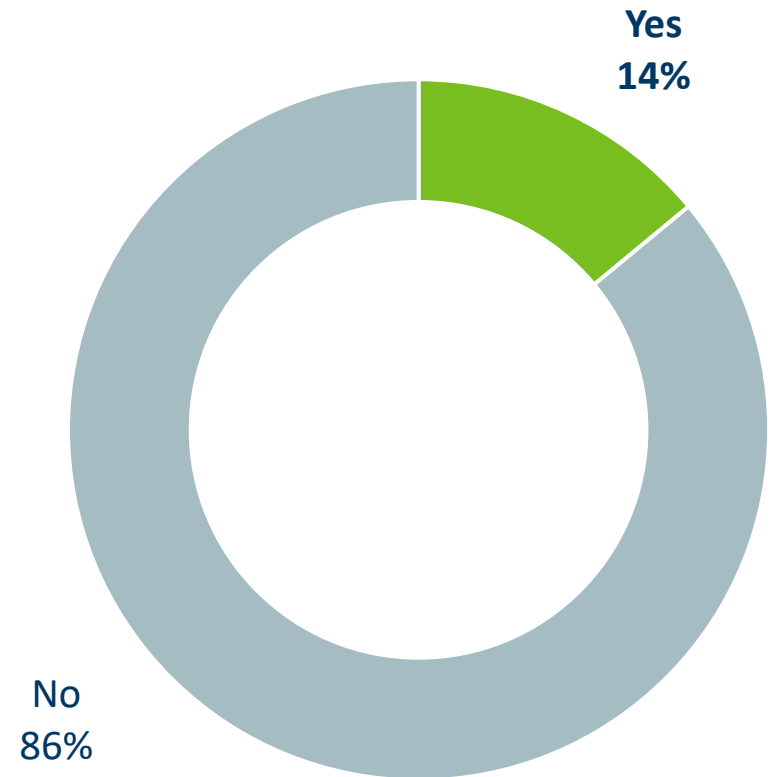


Veteran Status & Individuals with a Disability

Have you ever served in the U.S. Armed Forces, Reserves, or National Guard?



Do you classify yourself as having any kind of mental or physical disability?



Commuter Travel Time:

Goals and Targets

Delay Target Background

(shared in the survey)

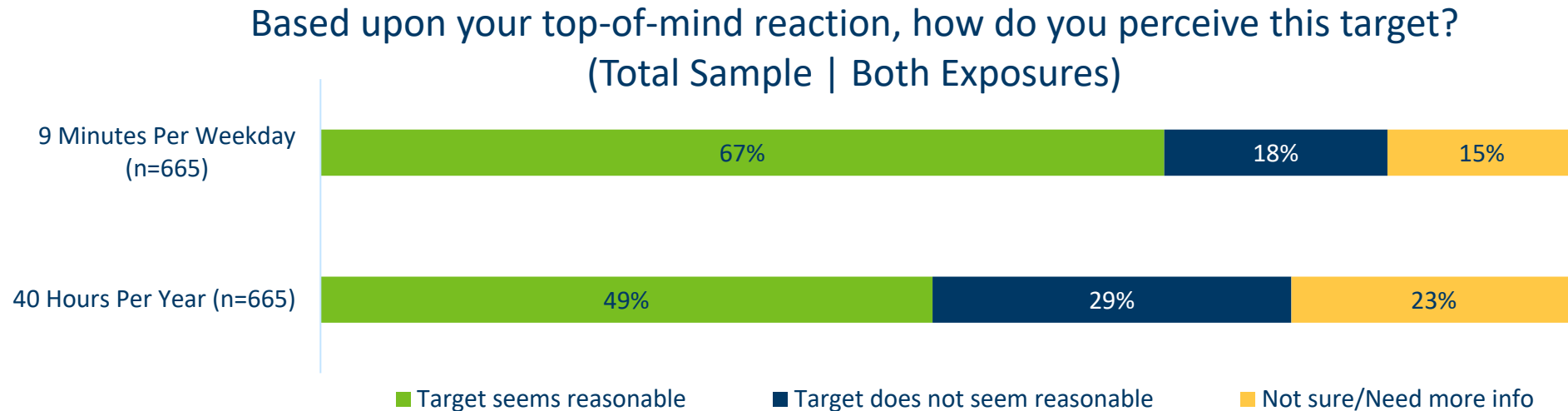
- Minnesota statute sets a goal for MnDOT to “provide a reasonable travel time for commuters.” MnDOT measures progress by setting and assessing a target; the reference point is the average delay for a person while traveling in the Twin Cities Metro Area.
 - The target can be defined using hours per year or minutes per weekday.
 - Currently, the proposed target for a person traveling in the Twin Cities Metro Area is an *average* of:
 - 40 hours of delay per person each year or
 - 9 minutes of delay per person each weekday
- NOTE: This goal is an average, meaning it may vary across people depending on how much and where they travel, and the two goals listed above are equal in terms of quantity of delay.*
- For context:
 - This is 5% less than it was prior to the pandemic
 - This is 30% lower than what is projected to be by 2040 (if no steps are taken to reduce it)

Delay Target Experiment

- This study was designed to answer two questions:
 - How reasonable is the delay target?
 - Which metric (hours/year or minutes/weekday) is preferred?
- An experiment was imbedded into the survey to help answer both questions.
- Half the respondents were randomly assigned to one of two groups:
 - Group-A was shown the target goal in hours/year first
 - Group-B was shown the target goal in minutes/weekday first
- This experiment allows us to assess the perceived reasonableness of the goal and clarity using each metric
- Each group was asked to indicate how reasonable their target goal was (and were not told there was an alternative way to present this goal).
- The question and inserts read as follows:
 - “Currently, the proposed target for a person traveling in the Twin Cities Metro Area is:
-An average of 40 hours of delay per person each year.
Based upon your top-of-mind reaction, how do you perceive this target?
-An average of 9 minutes of delay per person each weekday. Based upon your top-of-mind reaction, how do you perceive this target?”*
- After this initial evaluation:
 - Each group was shown the alternative metric and asked to evaluate its reasonableness
 - Then, all were told that both metrics represent the same relative delay and asked which metric was easier to understand

For a delay target, 9 minutes/weekday comes across as more reasonable than 40 hours/year

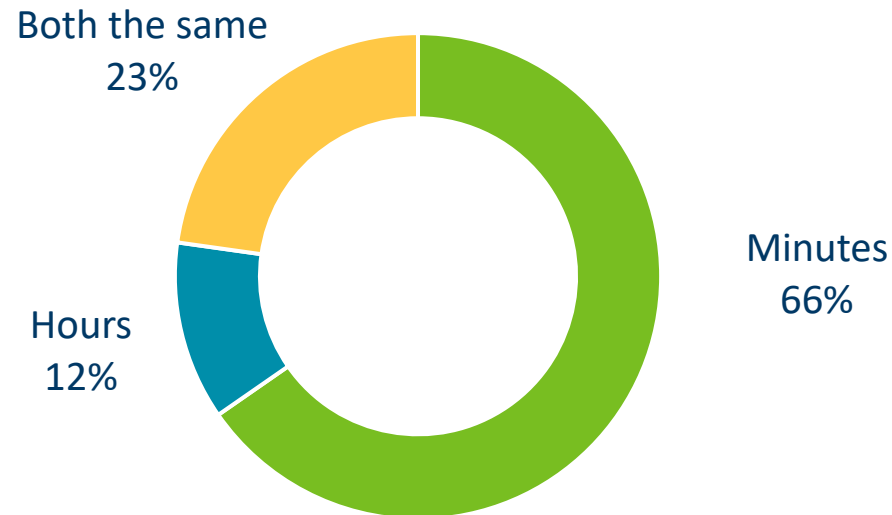
- The chart below shows the rating for each metric, regardless of the order shown.
- When looking at perceptions based upon what was shown first and second (shown in the appendix):
 - The group who saw “minutes/weekday” first had a higher percentage rating the target as “reasonable,” but the increase was not significant. The group who saw “hours/year” first had a significantly higher percentage rating the target as “not reasonable,” however.
 - Among those who saw “hours/year” first and then were asked to evaluate “minutes/weekday” were significantly more likely (and the most likely of all) to classify 9 minutes/weekday as reasonable.



When asked which metric was easier to understand, “minutes/weekday” was preferred again

- In the lead-in to this question, they were told both goals represent that same amount of delay time, relatively speaking, so that they emphasis was on only ease of understanding.

Which of these *target descriptions* is easier to understand? (n=665)



Greenhouse Gas (GHG) Emissions: *Goals and Targets*

GHG Background

(shared in the survey)

- Minnesota statute sets a goal for MnDOT to “reduce greenhouse gas emissions from the states transportation sector.”
 - Transportation is the largest source of greenhouse gas emissions in Minnesota and nationally.
 - Consistent with the Minnesota Next Generation Energy Act, MnDOT *previously* set a target to reduce transportation greenhouse gas emissions by 30% by the year 2025 when compared to 2005 levels.

GHG Reduction Goals Background

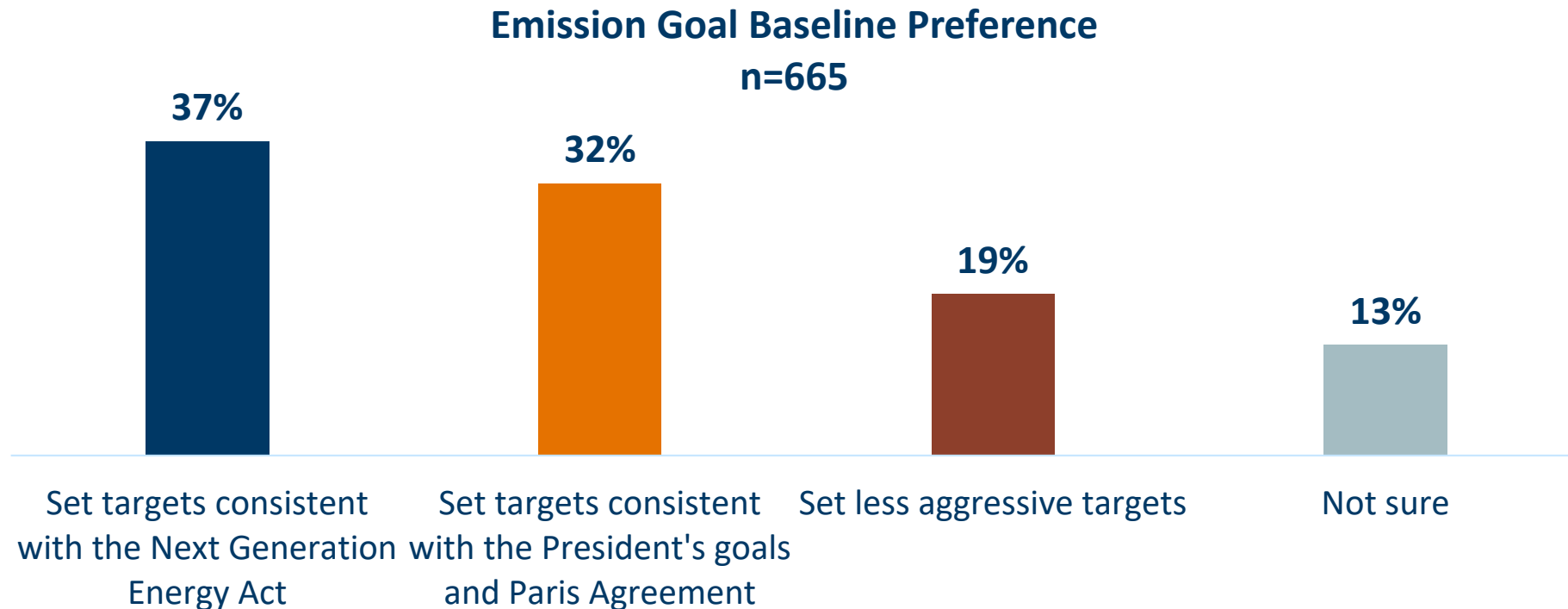
(shared in the survey)

This table shows greenhouse gas emissions reduction goals that have been set for Minnesota and nationally.

Source	Level of Reduction
Minnesota's Next Generation Energy Act	30% reduction by 2025 and 80% reduction by 2050
The President's national goals consistent with the Paris Agreement	50% reduction by 2030 and net zero by 2050

There is general agreement with setting a target for GHG emission reduction, but not necessarily how to align it

- The chart below refers to their preference for what baseline (Next Gen Act or Paris Agreement) emission goals should be set in MN.
- NOTE: A lead in question asked about their familiarity with the MN Next Generation Energy Act. Only 6% are very familiar, 28% are somewhat familiar and 66% have no familiarity at all (not shown here).



Vehicle Miles Traveled (VMT) Background

(shared in the survey)

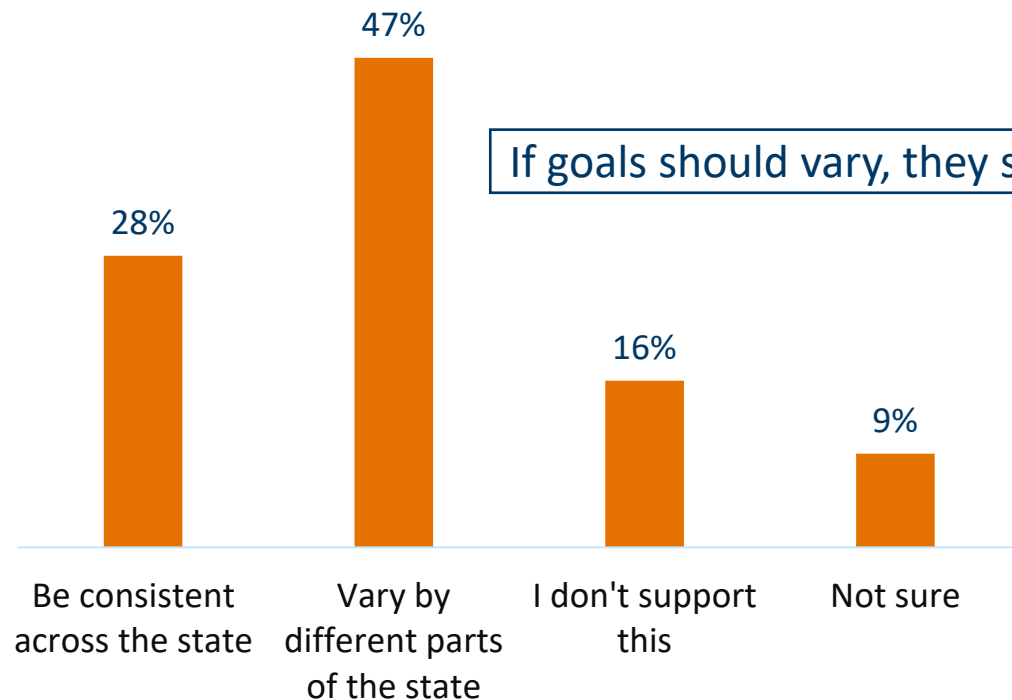
The next goal is related to greenhouse gas emissions.

- One way to support a reduction in greenhouse gas emissions is to increase transportation options that make it easier for people to travel fewer miles in cars, SUVs, trucks and motorcycles (referred to as “vehicle miles”).
- An external committee is suggesting MnDOT set a goal to reduce overall vehicle miles travelled to measure progress toward the overall reduction in greenhouse gas.

Nearly half of respondents (47%) feel the VMT reduction goal should vary throughout the state; within that group, the majority feel the goals should focus 'more in larger urban areas'

- When looking in combination, individuals who prefer goals focused on larger urban areas is 29% of the total. Larger urban areas were defined as Minneapolis, Rochester, Duluth, etc. This total proportion is very similar to the proportion that feels like it should be consistent across the state (28%).
- Less than one in five oppose setting a goal.

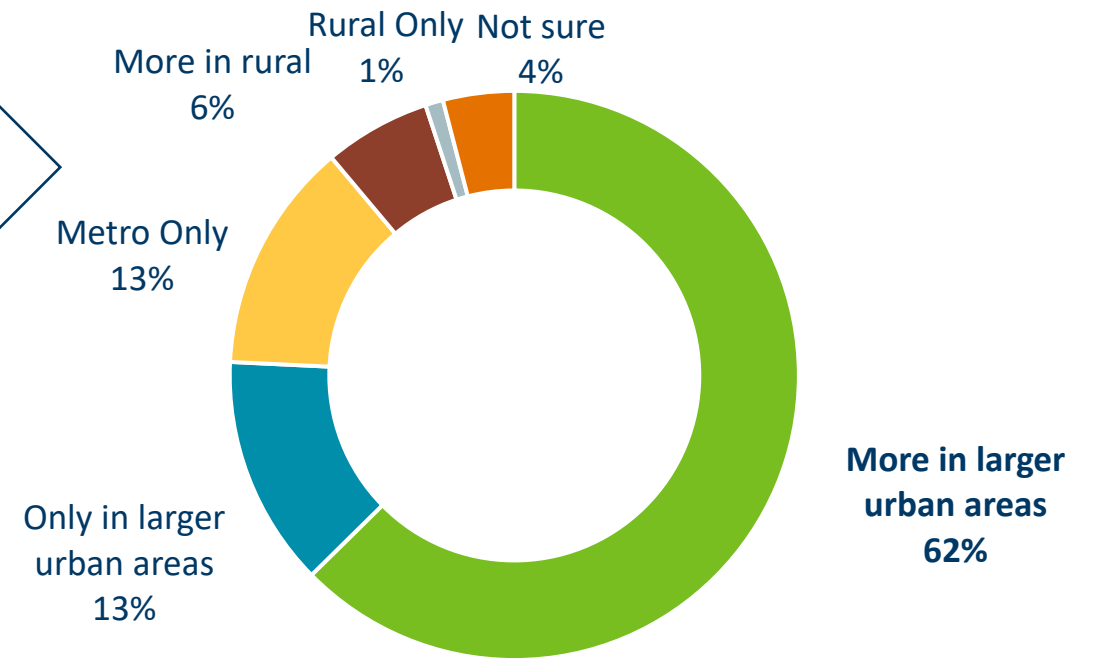
VMT Goal Agreement



If goals should vary, they should be ...

Where Goals Should be Focused

n=311



VMT Reduction Goals Background

(shared in the survey)

On average across the state, MnDOT is considering a 20% reduction in miles traveled by 2050 when compared to 2019.

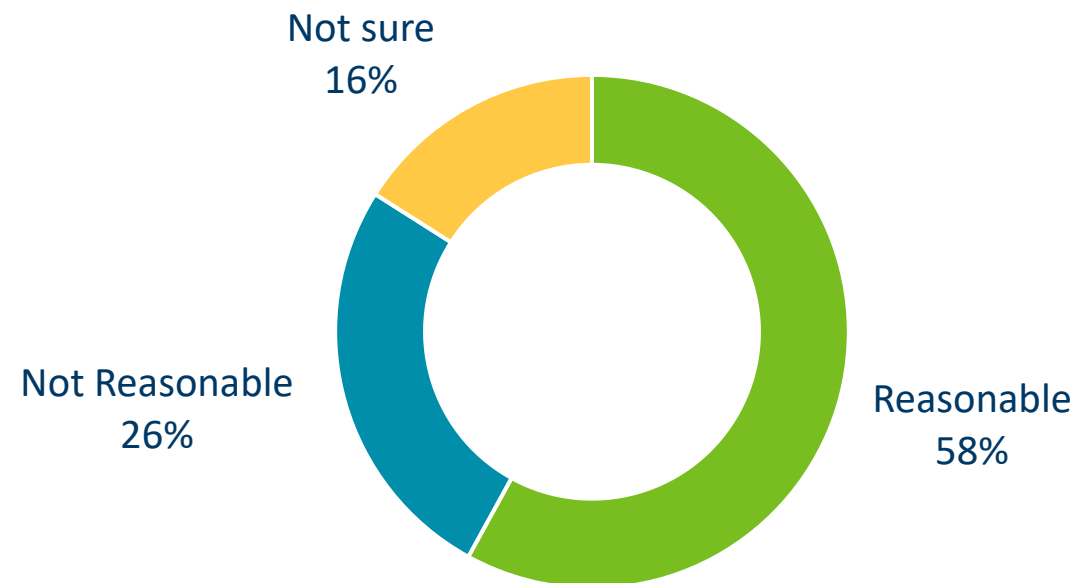
The table below shows examples of similar goals set around the country.

State	VMT Reduction Goal(s)
California	15% reduction by 2050
Colorado	10% reduction by 2030
Delaware	20% reduction in general
Maine	10% reduction by 2025 and 20% by 2030
Washington	30% reduction by 2035 and 50% by 2050

Nearly six in ten find the goal of a 20% reduction in VMT by 2050 to be reasonable; roughly one-quarter think it is not

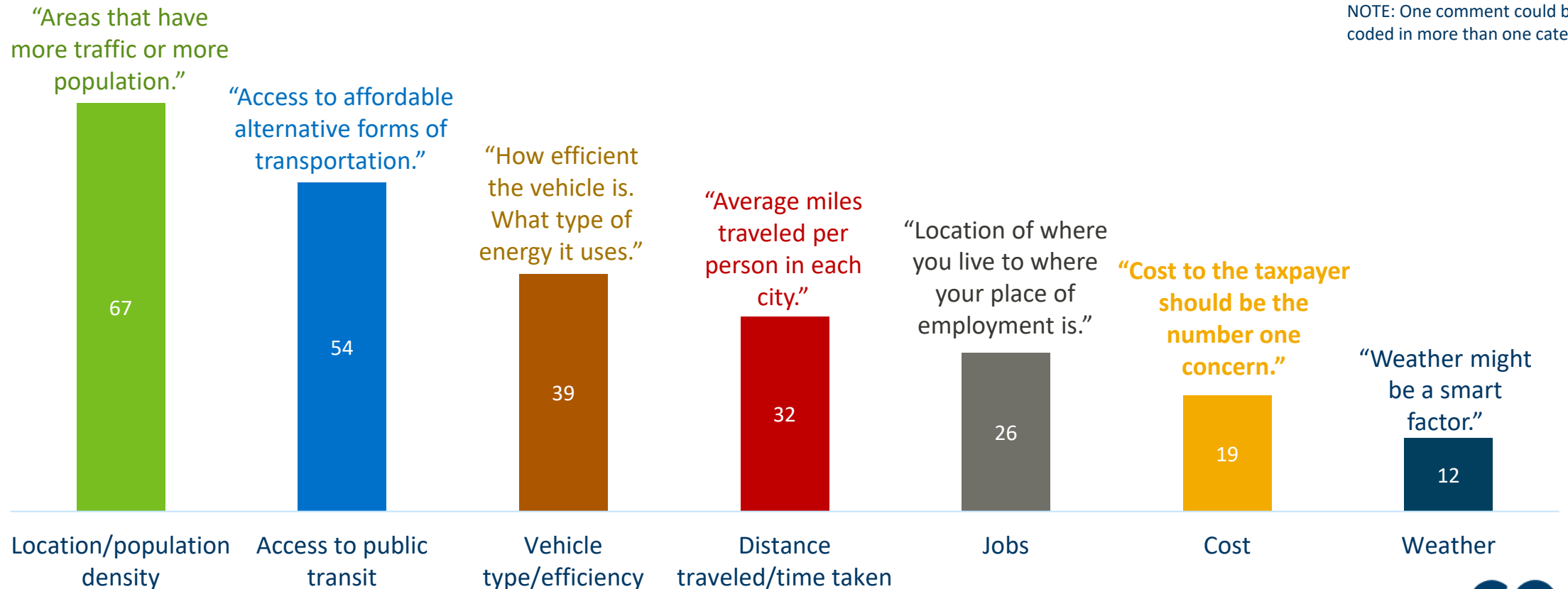
- Just under one-fifth are not sure if the goal is reasonable or not.

Reaction to Proposed VMT Reduction Goal: 20% by 2050
(n=665)



When asked what other factors should be considered when setting a VMT goal a variety of suggestions surfaced with the most common being factoring in the population/user variation by location

Factors to Consider When Setting a VMT Goal
(coded open ended comments, showing counts (n))



The numbers shown on the charts are counts not percentages and each one represents 10% or less of the total sample.

NOTE: One comment could be coded in more than one category.



Agreement & Preferences

Total Respondents
n=665

Attitudes

Respondents were told: *Now we would like to get your opinions about various issues and trade-offs to better understand preferences across Minnesotans. This will help MnDOT prioritize resources.*

Respondents were shown attitude grids with the following headers:

- Technology and Innovation
- Transportation Options
- Community Engagement, Safety, and Equity
- Trade-offs and Priorities

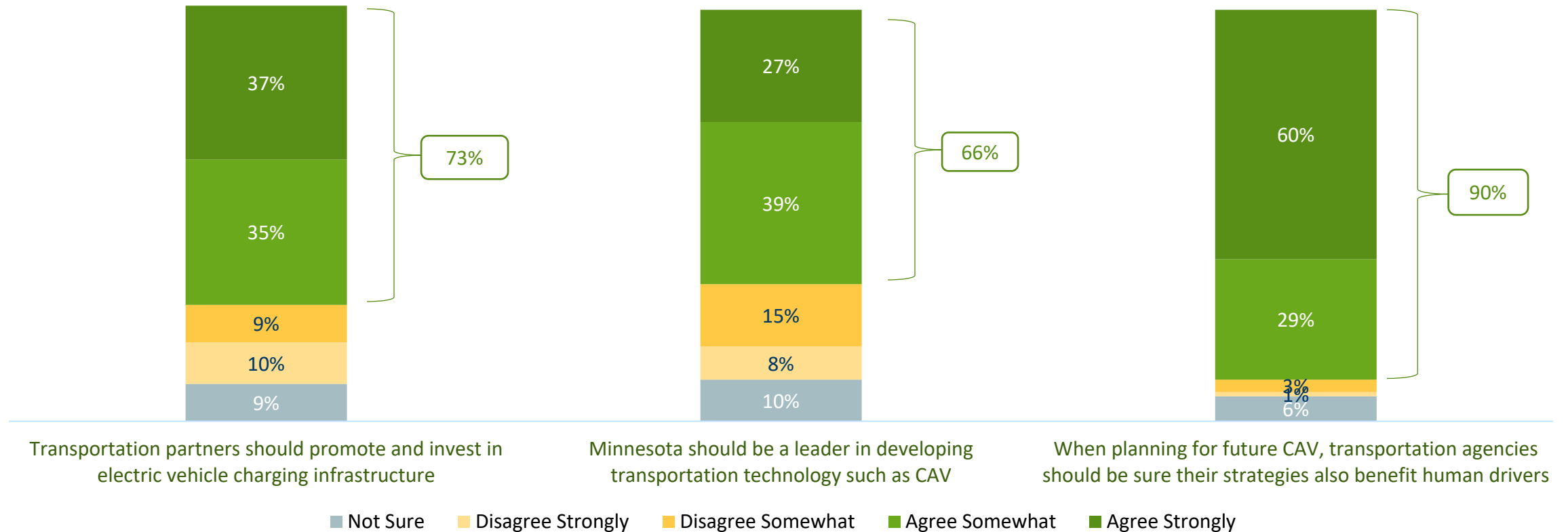
NOTE: The content sections and items within each section were randomized across the sample to remove the impact of order bias on the results.

Respondents were then shown a grid with opposite or competing priorities on each end of each scale and asked to place themselves on each continuum.

At the end, respondents were also asked to specify their regular modes of travel and if their own travel was impacted by unsafe or unaffordable options

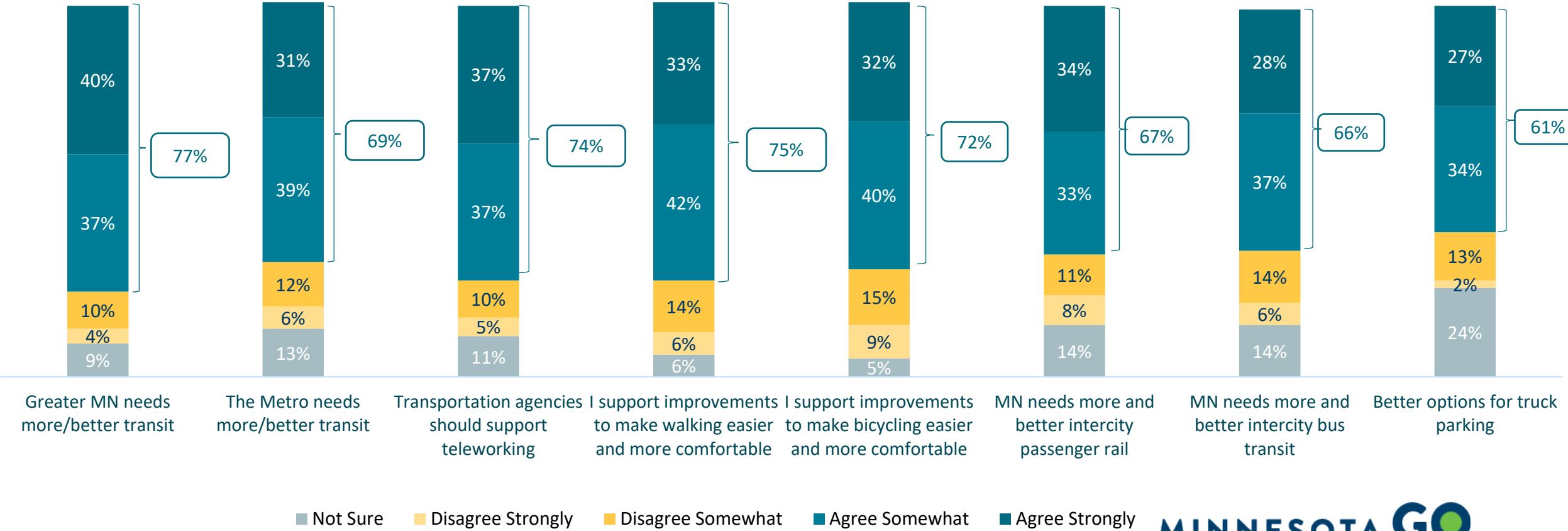
While there is widespread support for investment in CAV development, even more (nearly all) agree that human drivers should also benefit from future transportation planning

Level of Agreement with Technology and Innovation Statements
(n=665)



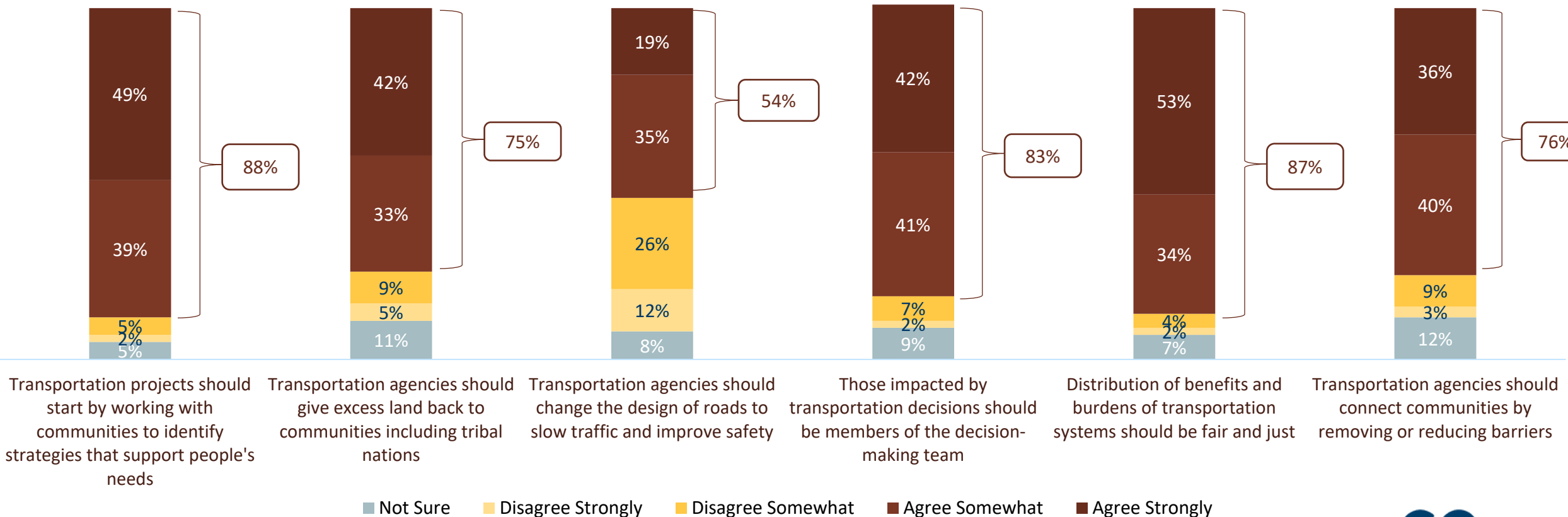
Roughly three-quarters agree that Greater MN could use better transit options, teleworking should be supported, and would support improvements that increase the ease and comfort of walking and bicycling

Level of Agreement with Transportation Options/Modes Statements
(n=665)



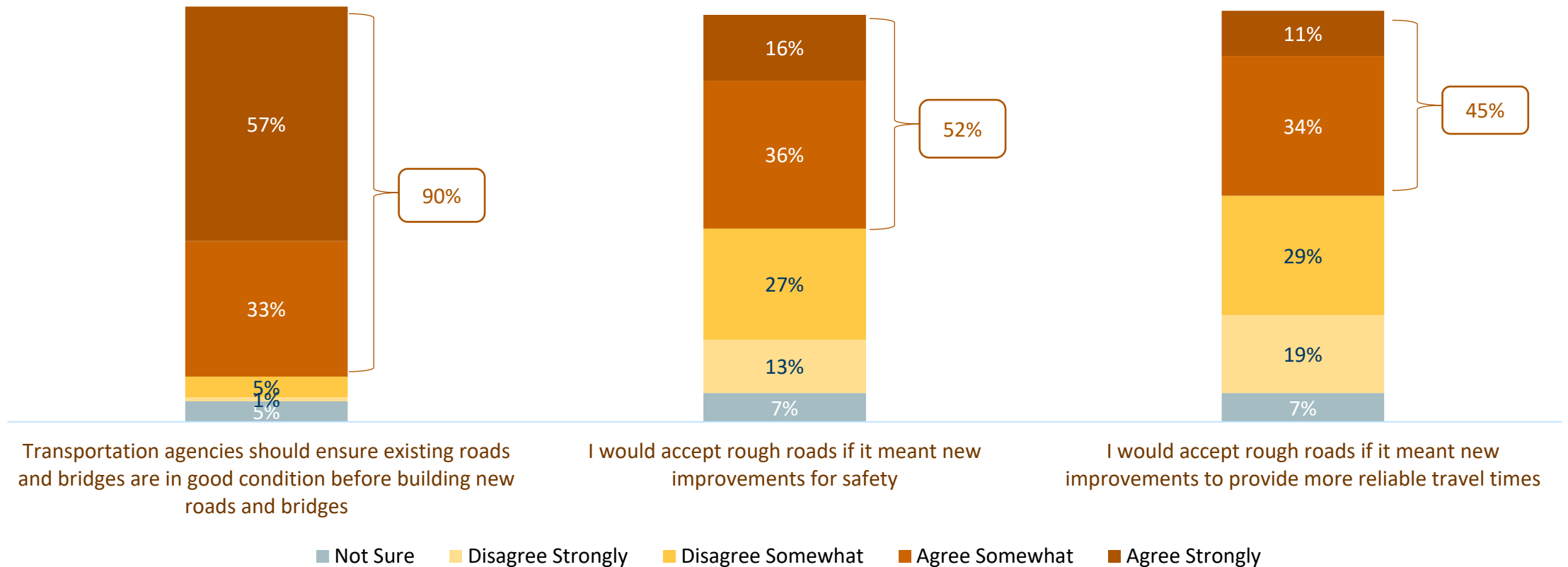
The need for early community input and fairness and justice in transportation systems is agreed upon by nearly 90%; over 8 in 10 agree that decision makers should include those impacted by such decisions

Level of Agreement with Community Engagement, Safety, and Equity Statements
(n=665)



Though 90% agree that existing infrastructure should take priority over new projects, there is no consensus regarding what would make rough roads acceptable

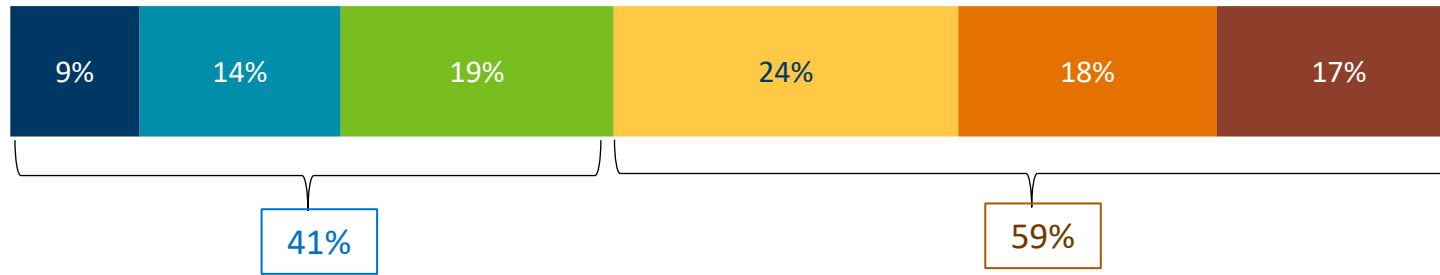
Level of Agreement with Tradeoffs and Priorities Statements
(n=665)



While support for VMT goal and options, less support for many strategies that would help meet it...

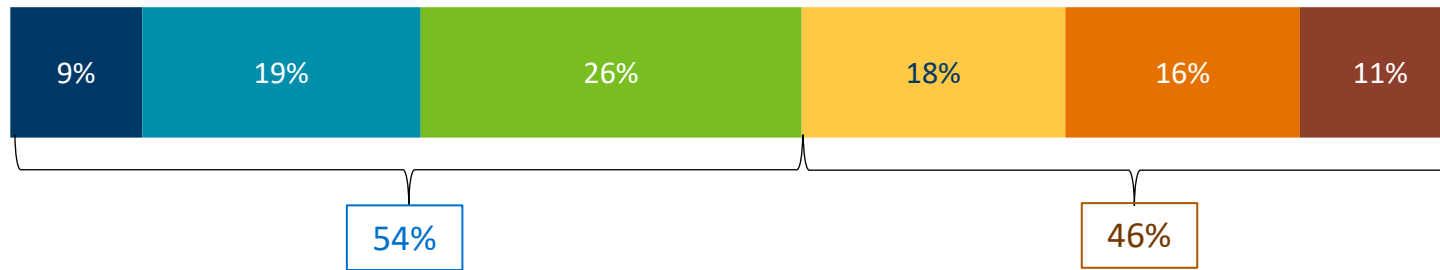
- The largest proportions are in the two middle categories - one associated with one end and the other with the opposite end - which emphasizes that people can see both sides of each coin and might explain how they can agree with emission reduction goals and want easy driving.

Transportation policy should try to shift more trips toward public transit, walking, and bicycling



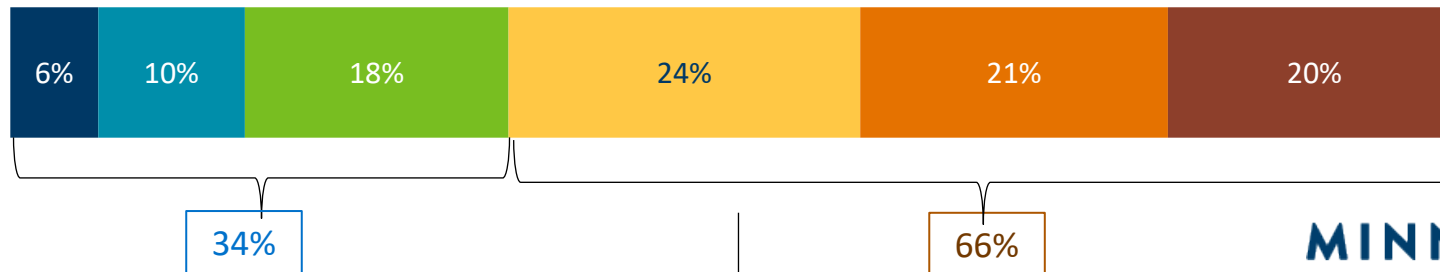
Transportation policy should make it easier for most to drive

Build homes/businesses mixed in the same neighborhoods for daily tasks without a car, even if it means smaller homes and yards



Build homes/businesses in separate areas with larger homes and yards, even if it means a car is essential

Local shopping districts should provide less on-street parking and convert parking spaces into patio seating, wider sidewalks, and bike lanes



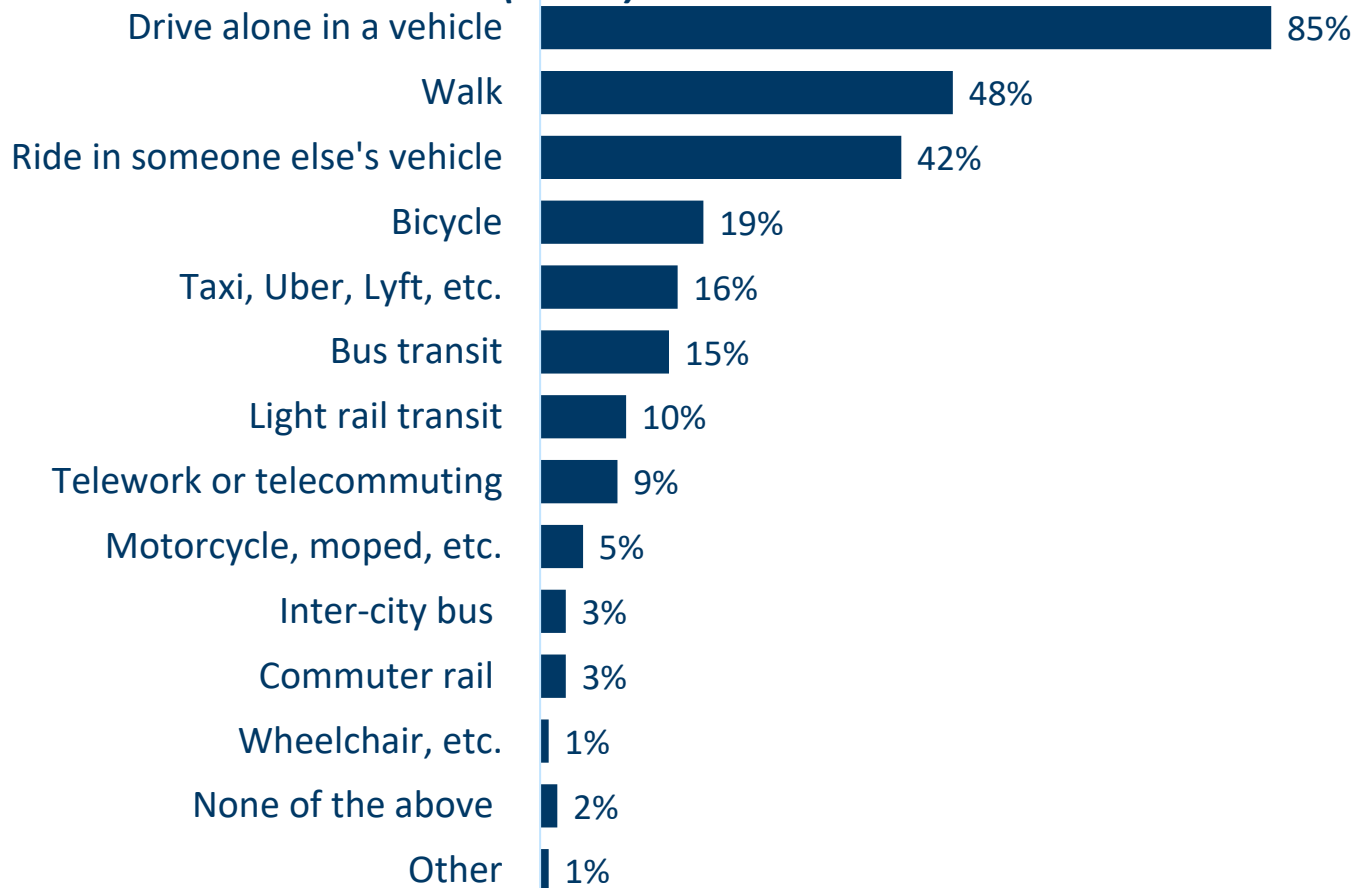
Local shopping districts should offer plenty of convenient on-street parking

1 2 3 4 5 6

The vast majority travel by car regularly; almost half also regularly walk and four in ten share rides

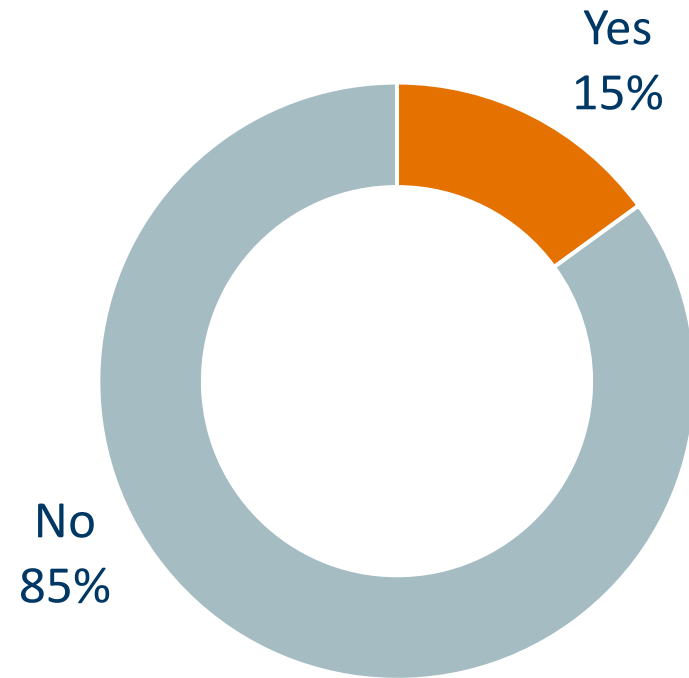
Travel habits before COVID: modes used at least monthly

(n=665)



About one in seven individuals have had their travel impacted because of a lack of safe or affordable options

Have not taken a trip due to lack of safe or affordable transportation option
(n=665)



Significant Differences Across Groups

- Age
- Race/Ethnicity
- Gender
- Region
- Mode of Travel

These differences are the most substantive and all are significant at the 95% confidence level

AGE

Differences surfaced across two different break points:

- ✓ Those <55 (n=440) compared to those 55+ (n=225)
- ✓ Those <35 (n=186) compared to those 35+ (n=479)

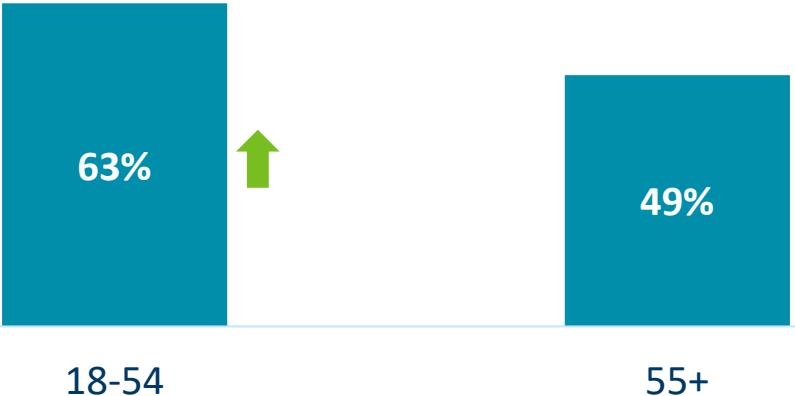
Unweighted counts (n) are shown here.

Younger individuals are more likely than older individuals to support actions that would have benefits other than increasing the ease of driving

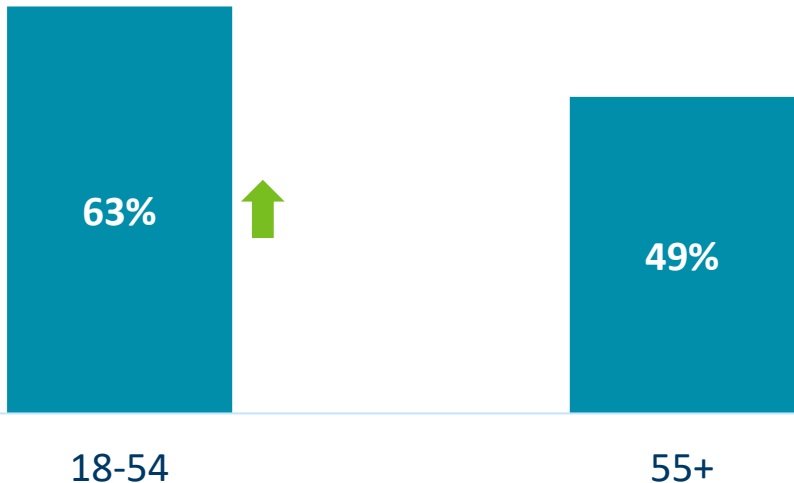
- **Individuals aged 18-54 are more likely** than those 55+ to:
 - Feel a 20% reduction in VMT by 2050 seems reasonable (63% vs. 49%)
 - Consider the goals for the average delay for a person while traveling in the Twin Cities Metro Area to be reasonable, regardless of which metric is used (63% vs 49% averaged across the goals)
 - Support improvements to State-owned roads to make it easy and comfortable to:
 - Walk (82% vs. 62%)
 - Bicycle (77% vs. 61%)
 - Agree that transportation agencies should support and encourage teleworking (78% vs. 67%)
 - Agree the Metro area needs more and better transit options (75% vs. 59%)
 - Agree MN needs more and better intercity passenger rail options (73% vs. 56%) and bus options (73% vs. 53%)
 - Be willing to accept more bumpy or rough roads if it meant new improvements for safety (59% vs. 39%)
 - Be willing to accept more bumpy or rough roads if it meant new improvements to provide more reliable travel times (51% vs. 34%)
 - Need more options for truck parking (65% vs. 53%)
 - Transportation agencies should change the design of roads to slow traffic and improve safety (58% vs. 47%)
 - Not have a taken a trip due to safe/affordable options (20% vs. 6%)
 - Transportation agencies should connect communities by removing or reducing barriers that divide them (79% vs. 70%)
 - Support promoting and investing in electric vehicle charging infrastructure (76% vs. 67%)
 - Minnesota should be a leader in CAV (72% vs. 55%)

Those 18-54 are more likely than those 55+ to find proposed VMT reductions and commuter delay goals to be reasonable

Proposed VMT reduction goal of 20% is reasonable



Proposed commuter delay of [40 hours/Year | 9 minutes/Weekday] per person is reasonable*



**Percentages here are averaged across both metrics (which represent the same quantity) since all differences were significant*

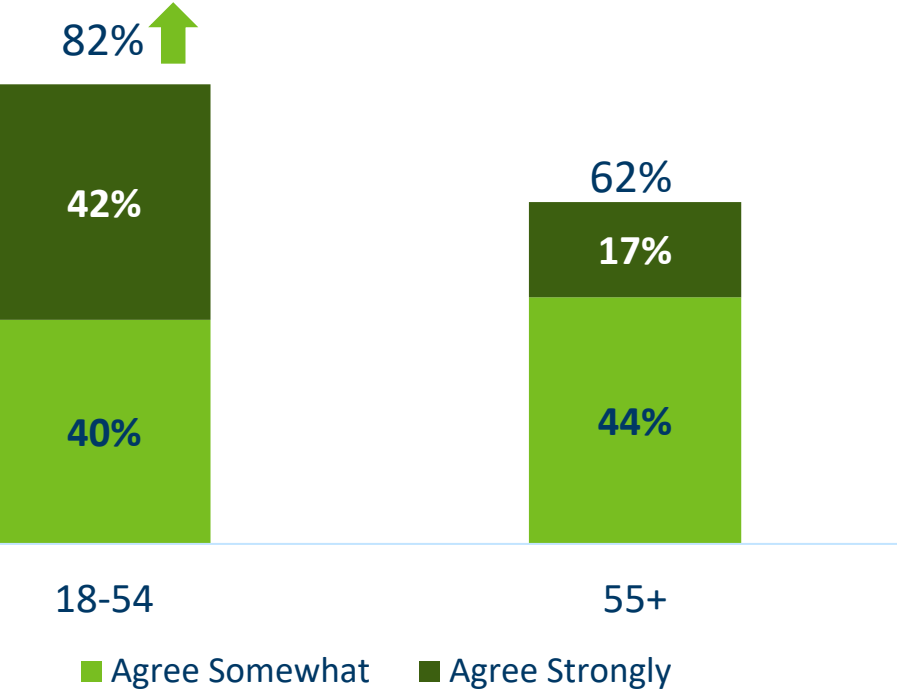
Full Statements:

- Based upon your top-of-mind reaction, how do you perceive Minnesota's proposed reduction goal listed above?
- Based upon your top-of-mind reaction, how do you perceive this target of an average of [40 hours/year | 9 minutes per weekday]?

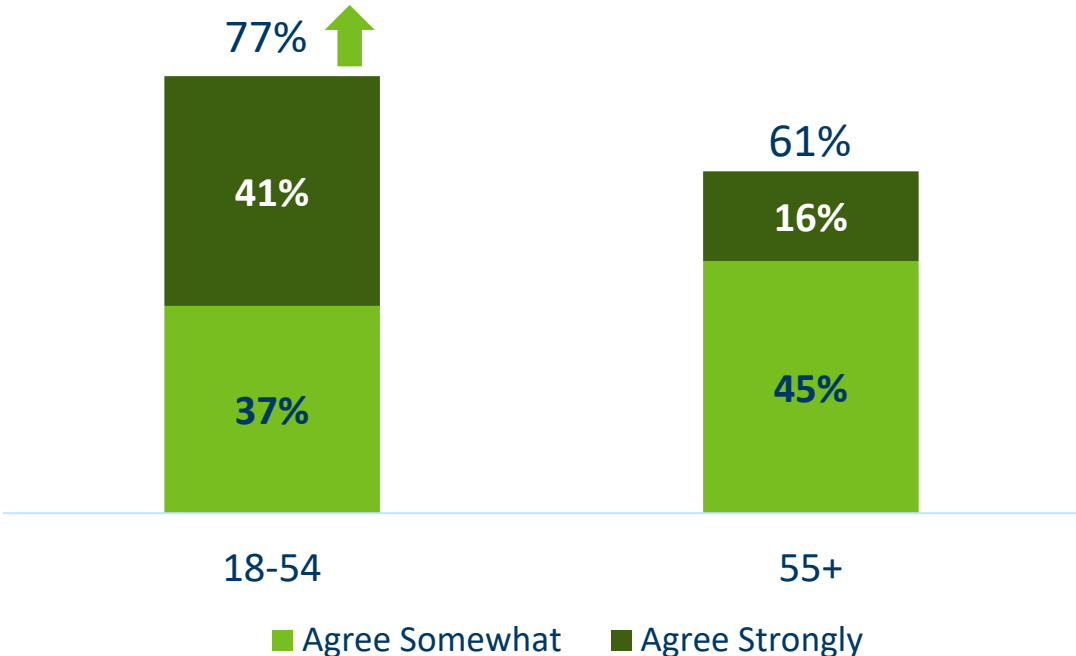


Those 18-54 are more likely than those 55+ to support improvements that benefit active transportation (e.g., walking and bicycling)

Support improvements for walking



Support improvements for bicycling

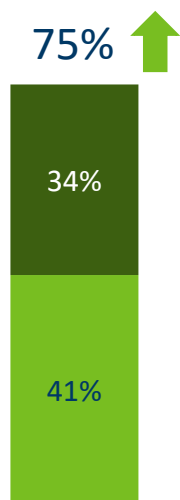


Full Statements:

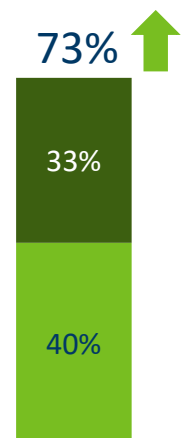
- I support improvements to State-owned roads to make it easy and comfortable to walk
- I support improvements to State-owned roads to make it easy and comfortable to bicycle

Those 18-54 are more likely than those 55+ to support services that could reduce the need to drive a vehicle (e.g., public transit and teleworking)

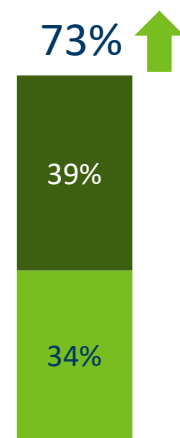
Metro needs better transit



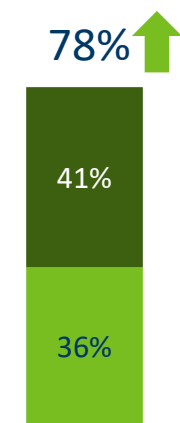
MN needs better intercity bus options



MN needs better intercity rail options



Transportation agencies should support teleworking



■ Agree Somewhat ■ Agree Strongly ■ Agree Somewhat ■ Agree Strongly ■ Agree Somewhat ■ Agree Strongly ■ Agree Somewhat ■ Agree Strongly

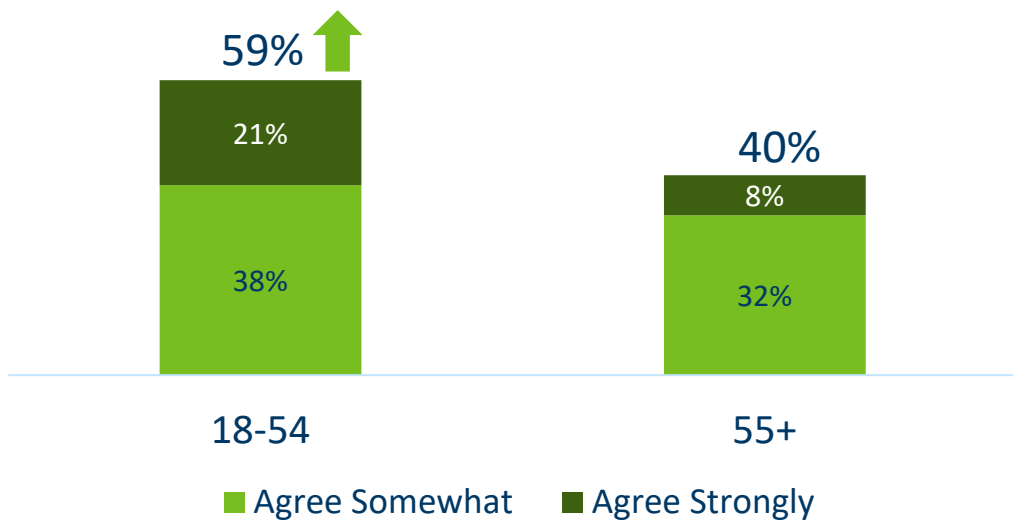
Full Statements:

- The Metro area needs more and better transit options
- Minnesota needs more and better intercity bus transit options
- Minnesota needs more and better intercity passenger rail options
- Transportation agencies should support and encourage teleworking and other remote options like telemedicine

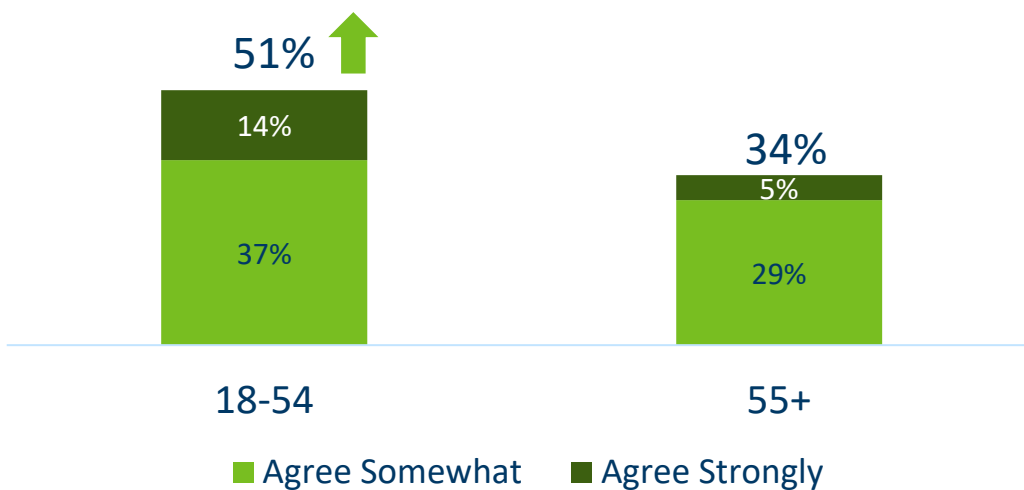


Those 18-54 are more likely than those 55+ to live with less than perfect (bumpy) roads if it allowed for improved safety and more reliable travel times

Would accept bumpy roads if it meant improved safety



Would accept bumpy roads if it meant more reliable travel time



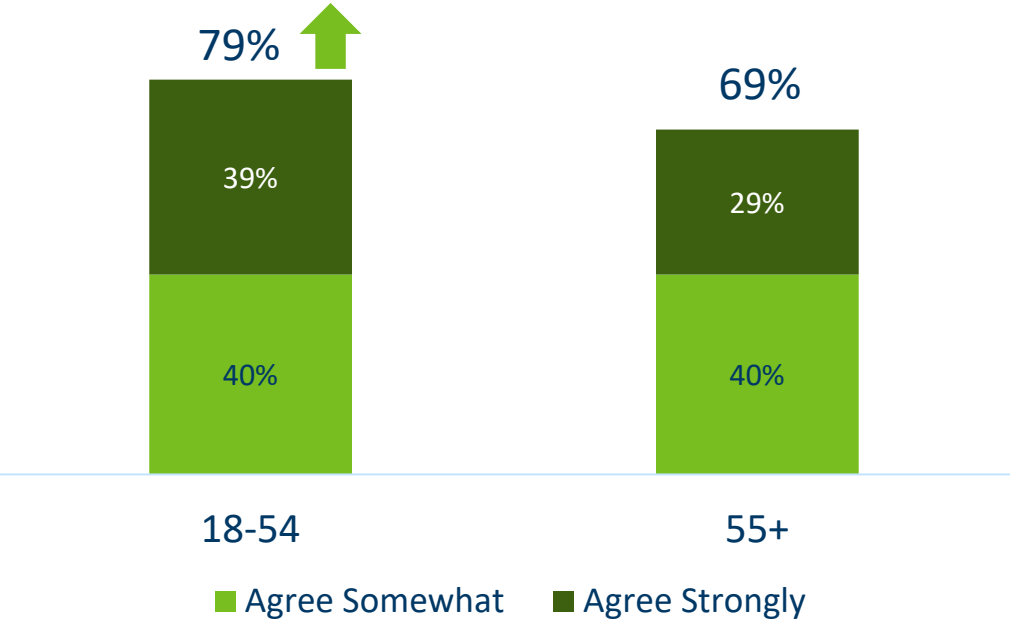
Full Statements:

- I would be willing to accept more bumpy or rough roads if it meant new improvements for safety
- I would be willing to accept more bumpy or rough roads if it meant new improvements to provide more reliable travel times

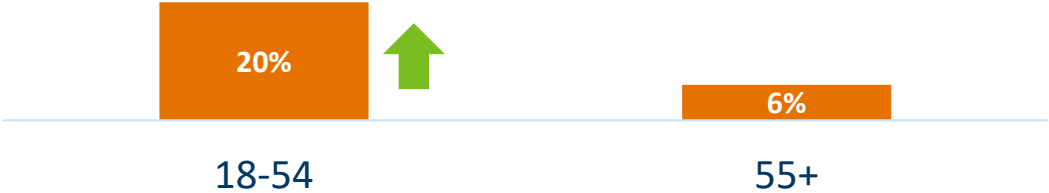


Those 18-54 are more likely than those 55+ to support transportation agencies actively removing barriers, possibly because more of them have experienced barriers to safe/affordable travel recently

Transportation agencies should remove barriers



Experienced lack of safe/affordable transportation option in the last month

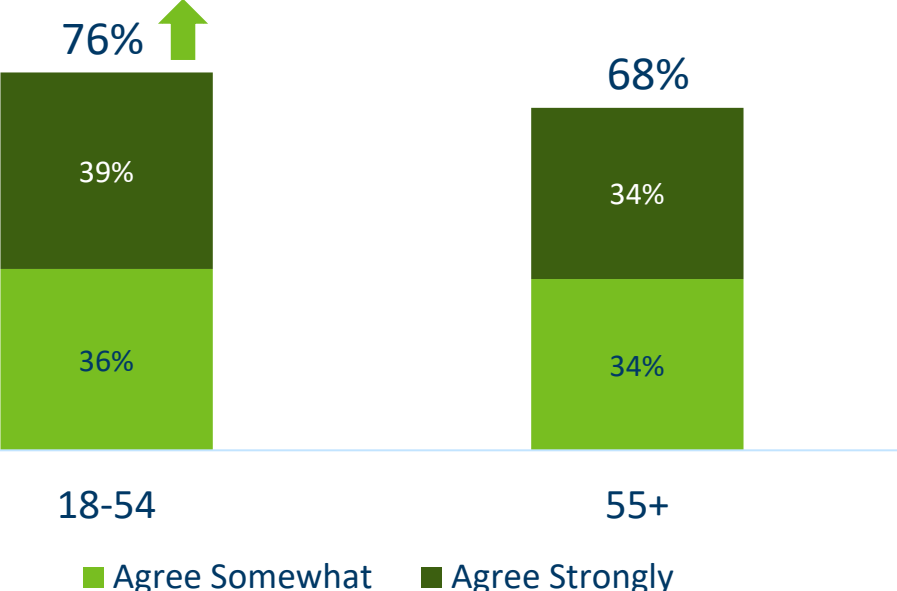


Full Statements:

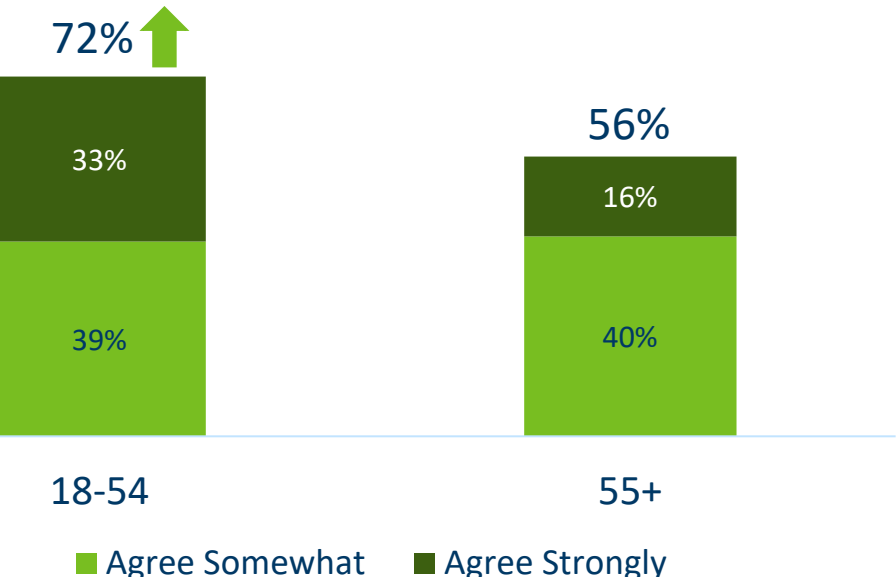
- Transportation agencies should connect communities by removing or reducing barriers that divide them
- In the last month, have you ever not taken a trip because you lacked a safe or affordable transportation option?

Those 18-54 are more likely than those 55+ to support investments in cleaner technology for cars

Transportation partners should promote EV charging infrastructure



MN should be a leader in CAV development/deployment



Full Statements:

- Transportation partners should promote and invest in electric vehicle charging infrastructure
- Minnesota should be a leader in developing and deploying transportation technology such as connected and automated vehicles

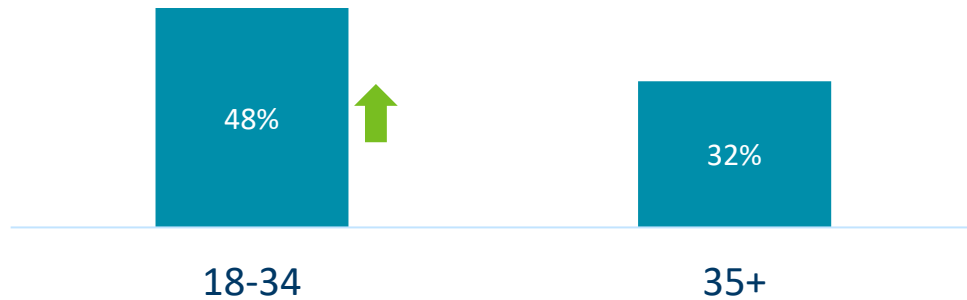


The youngest individuals add an interesting perspective: with a stronger preference for slightly more conservative GHG targets, more sensitivity to the needs of Greater MN, and greater exposure to safety/affordability issues

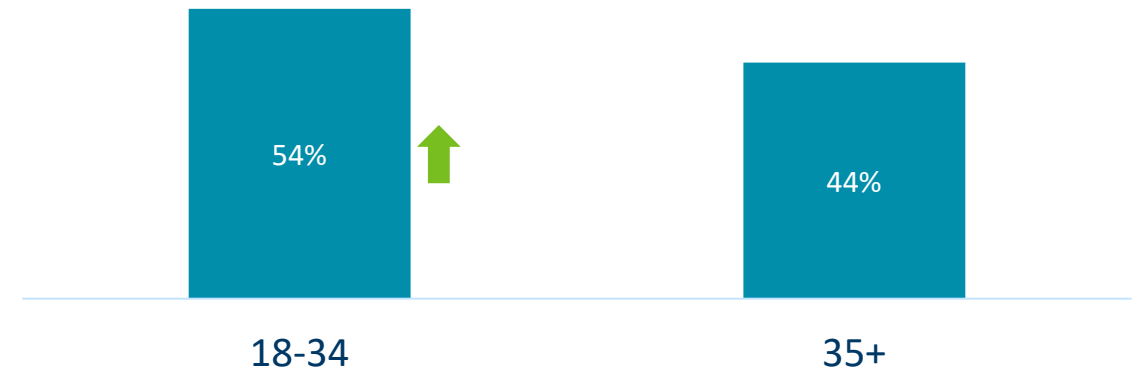
- **Individuals <35 are more likely** than those 35+ to:
 - More likely to want to set the GHG emission reduction targets consistent with the Next Generation Energy Act (48% vs. 32%) and this preference declines consistently with age; preference for the Paris Agreement is quite consistent
 - NOTE: The Next Generation Energy Act has slightly more conservative targets than the Paris Agreement.
 - More likely to feel VMT goals should vary by different parts of the state (54% vs 26%)
 - Feel Greater Minnesota needs more and better transit options (87% vs. 73%)
 - Not have a taken a trip due to safe/affordable options (31% vs. 8%)

Those 18-34 are more likely than those 35+ to have higher support for aligning GHG emissions goals with the Next Generation Energy Act and for VMT goals to vary across the state

MnDOT should set targets for GHG emissions consistent with Next Generation Energy Act



VMT reduction goals should vary by different parts of the state

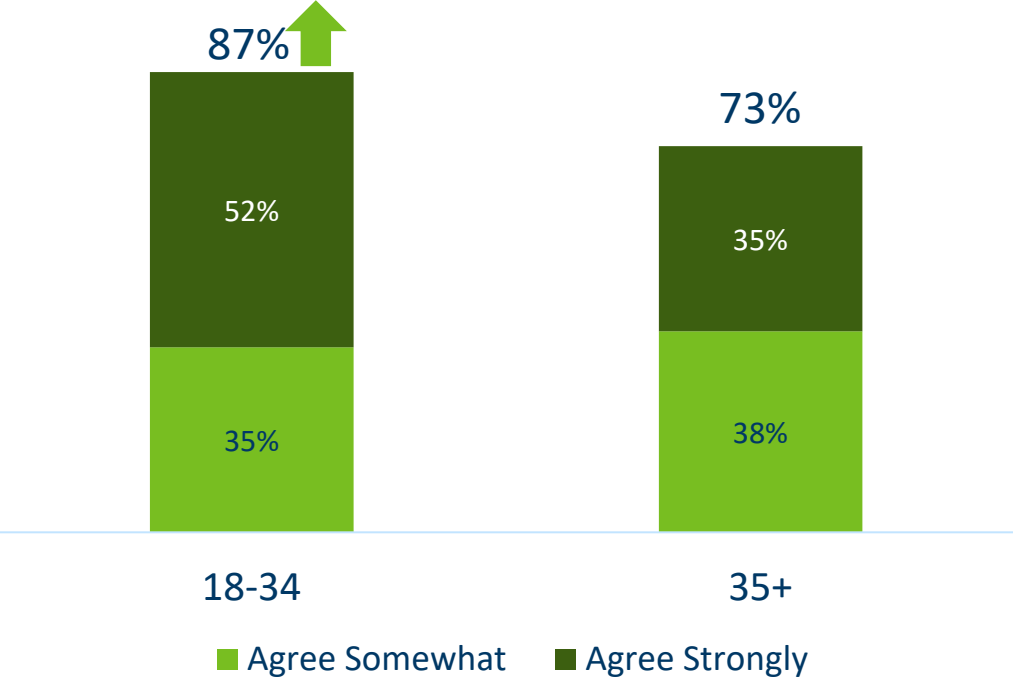


Full Statements:

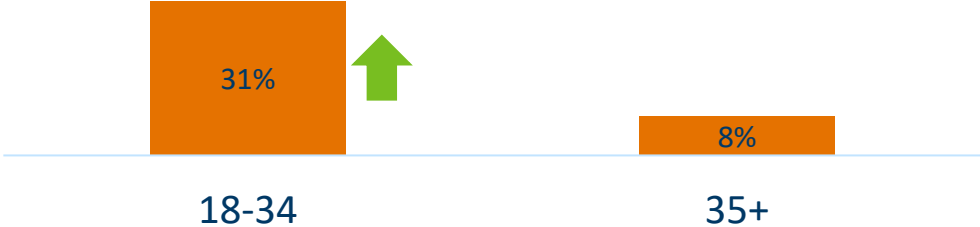
- MnDOT is now considering setting targets for transportation emissions for 2030 and 2040. *Should MnDOT set targets consistent with Next Gen, Paris Agreement, set less aggressive targets or not sure.* [Next Gen=30% reduction by 2025 and 80% reduction by 2050; Paris Agreement=50% reduction by 2030 and net zero by 2050]
- Do you feel this VMT goal should be consistent across the state or vary by different parts of the state (for example, a different goal for the Twin Cities Metro Area than in Greater MN)?

Those 18-34 are more likely than those 55+ to feel Greater MN needs better transit and to have not take a trip due to safe or unaffordable options

Greater MN needs better transit



Experienced lack of safe/affordable transportation option in the last month



Full Statements:

- Greater Minnesota needs more and better transit options
- In the last month, have you ever not taken a trip because you lacked a safe or affordable transportation option?



RACE/ETHNICITY:

Differences surfaced between those who classify as “only white” (n=546)
compared to “not only white” (n=116)

NOTE: Those in the “not only white” group classify themselves as Black, American Indian, Asian and/or Hispanic (solely or in combination, which can include white)

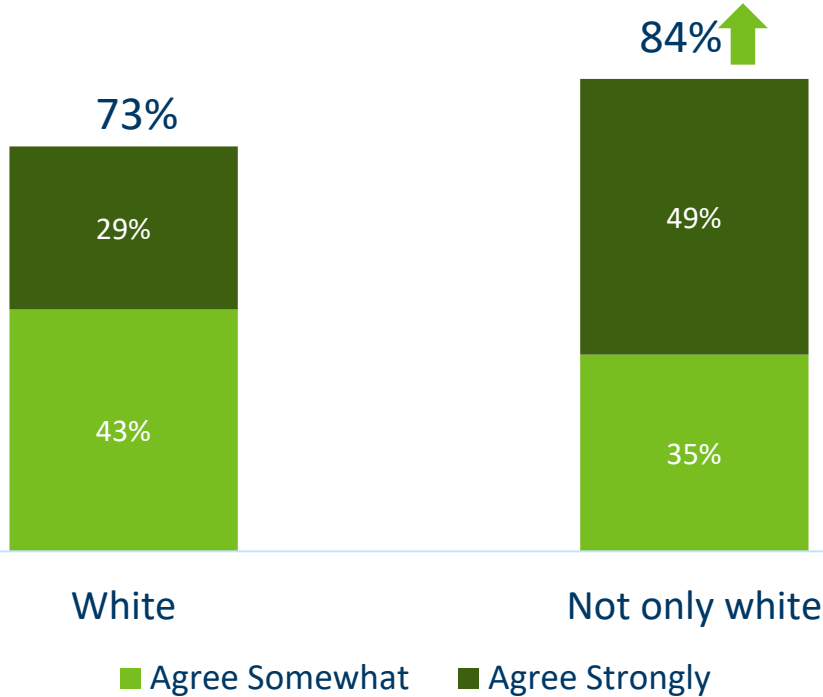
Unweighted counts (n) are shown here.

Individuals who classify themselves as something other than only white are more likely to support actions that would have benefits other than increasing the ease of driving

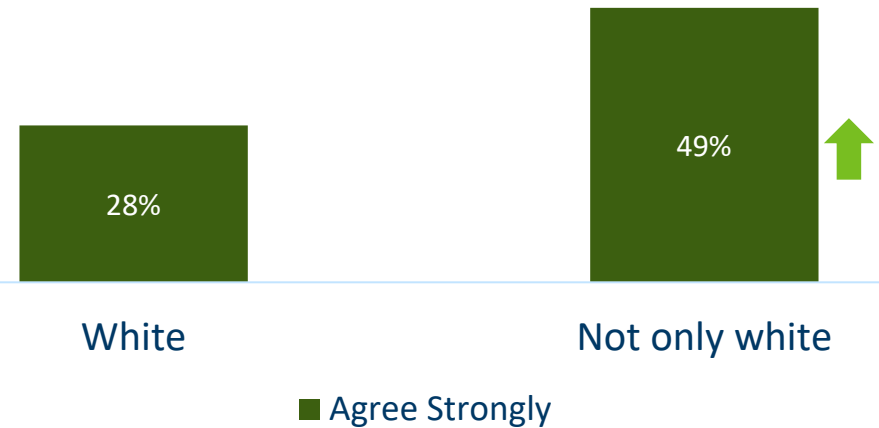
- **Individuals classified as Hispanic or a race besides or in addition to white are more likely** than those classified as only white to:
 - Support improvements to State-owned roads to make it easy and comfortable to walk (84% vs. 73%)
 - Strongly support improvements to State-owned roads to make it easy and comfortable to bicycle (49% vs. 28%)
 - Agree that Minnesota needs more and better intercity passenger rail options (81% vs. 65%)
 - Agree that Minnesota needs more and better intercity bus transit options (82% vs. 63%)
 - Agree that Greater Minnesota needs more and better transit options (88% vs. 76%)
 - Agree that transportation partners should promote and invest in electric vehicle charging infrastructure (83% vs. 72%)
 - Agree that Minnesota should be a leader in developing and deploying transportation technology such as connected and automated vehicles (84% vs. 63%)
 - Agree that Transportation agencies should change the design of roads to slow traffic and improve safety (74% vs. 50%)
 - Be willing to accept more bumpy or rough roads if it meant new improvements for safety (68% vs. 49%)
 - Be willing to accept more bumpy or rough roads if it meant new improvements to provide more reliable travel times (62% vs. 42%)
 - Not have taken a trip due to safe/affordable options (30% vs 12%)
- **Individuals classified as white are more likely** than those classified as another race other than white and/or Hispanic to:
 - Disagree with making improvements to State-owned roads to make it easy and comfortable to bicycle (25% vs 14%)

Those who classify themselves as something other than only white are more likely to support improvements that improve active transportation (e.g., walking and bicycling)

Support improvements for walking



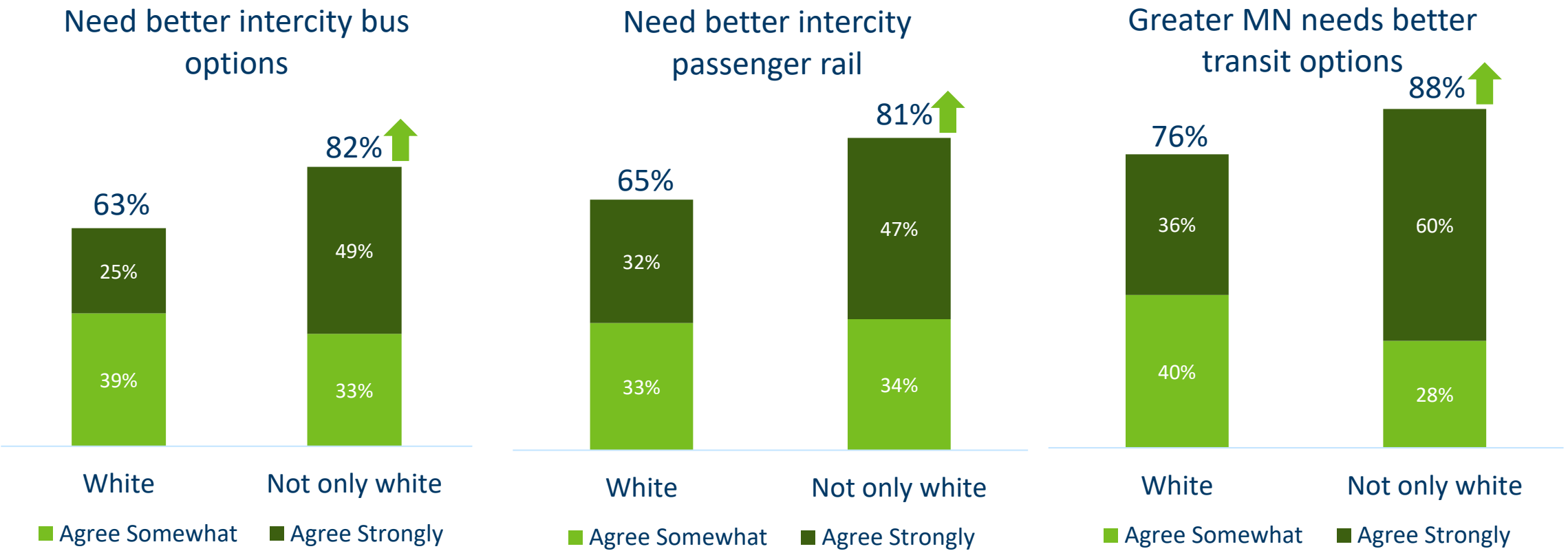
Strongly support improvements for bicycling



Full Statements:

- I support improvements to State-owned roads to make it easy and comfortable to walk
- I support improvements to State-owned roads to make it easy and comfortable to bicycle. NOTE: The top-2 box nets are directionally similar, at 70% and 79% but the difference is just shy of being significant

Those who classify themselves as something other than only white are more likely to support improvements in intercity transit options (bus and rail) and more/better options within Greater MN

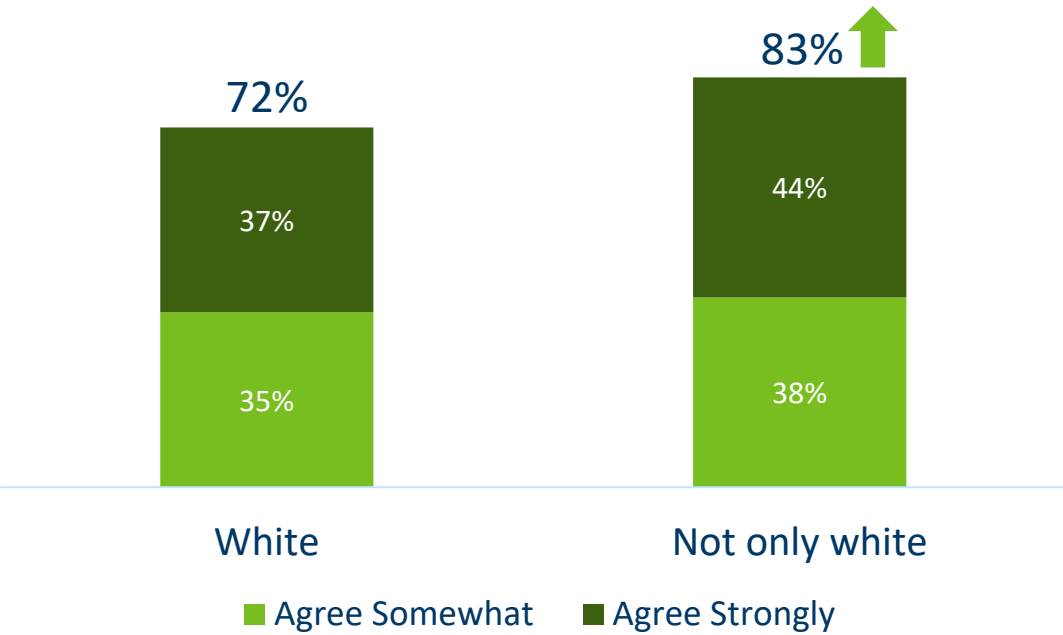


- Full Statements:
- Minnesota needs more and better intercity bus transit options
 - Minnesota needs more and better intercity passenger rail options
 - Greater MN needs more and better transit options

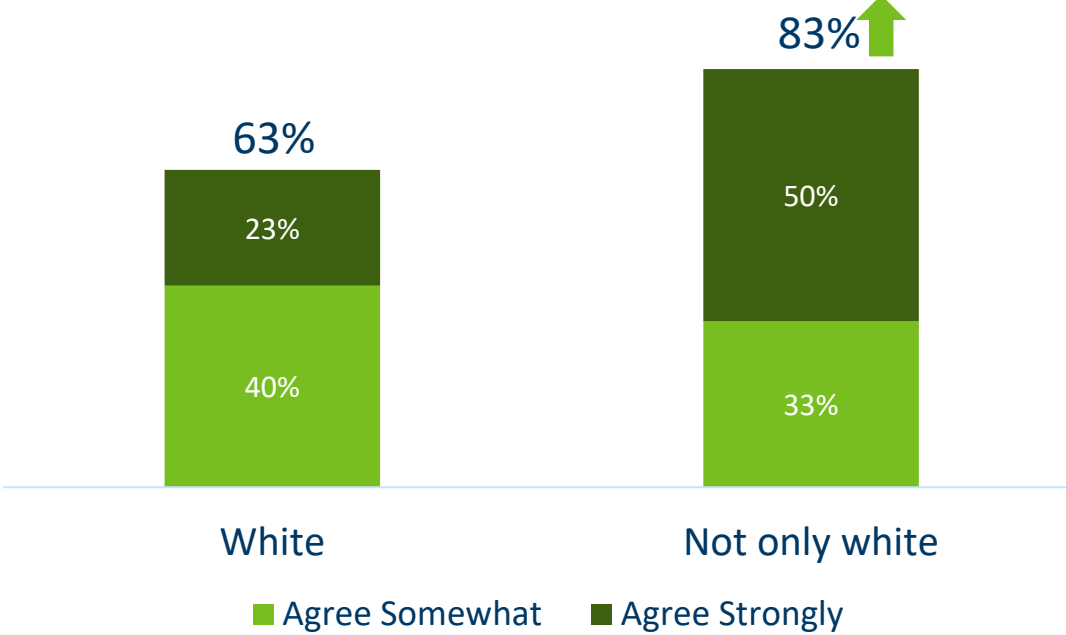


Those who classify themselves as something other than only white are more likely to support investments in cleaner technology for cars

Transportation partners should promote EV infrastructure



MN should be a leader in CAV development/deployment



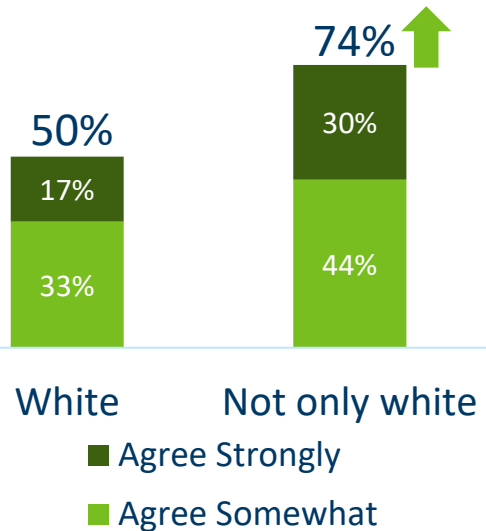
Full Statements:

- Transportation partners should promote and invest in electric vehicle charging infrastructure
- Minnesota should be a leader in developing and deploying transportation technology such as connected and automated vehicles

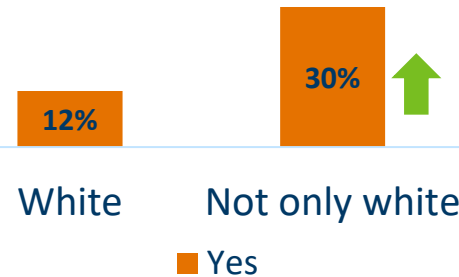


Those who classify themselves as something other than only white are more likely to support improvements that improve safety, reliable travel time, and to have experienced a lack of affordable/safe options

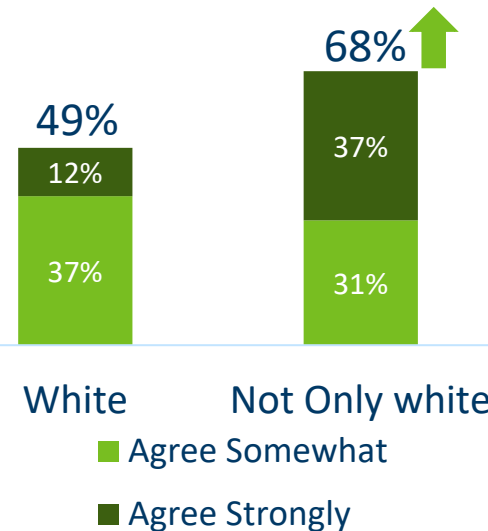
Support road design that slows traffic and improves safety



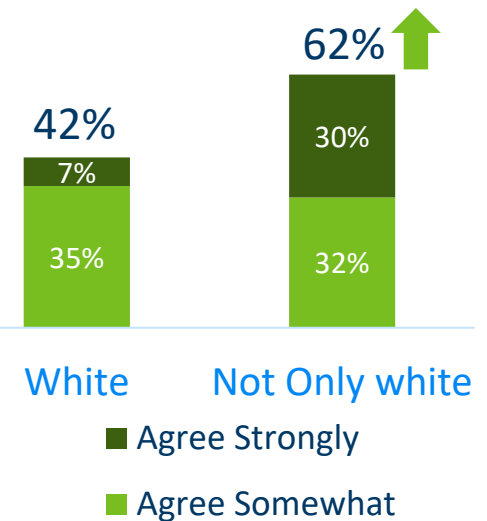
Experienced lack of safe/affordable transportation option in the last month



Would accept bumpy roads if it meant more improved safety



Would accept bumpy roads if it meant more reliable travel time



Full Statements:

- Transportation agencies should change the design of roads to slow traffic and improve safety
- In the last month, have you ever not taken a trip because you lacked a safe or affordable transportation option?
- I would be willing to accept more bumpy or rough roads if it meant new improvements for safety
- I would be willing to accept more bumpy or rough roads if it meant new improvements to provide more reliable travel times

GENDER

Differences surfaced between those who classify themselves as “female” (n=406) compared to “male” (n=249)

NOTE: Respondents were able to classify themselves as female, male, transgender, non-binary, or prefer not to answer. The latter 3 groups were too small to analyze separately.

Unweighted counts (n) are shown here.

Women are more likely than men to support improvements that benefit modes other than vehicles and safe/reliable travel; they are also stronger supporters of getting community input upfront and customized goals

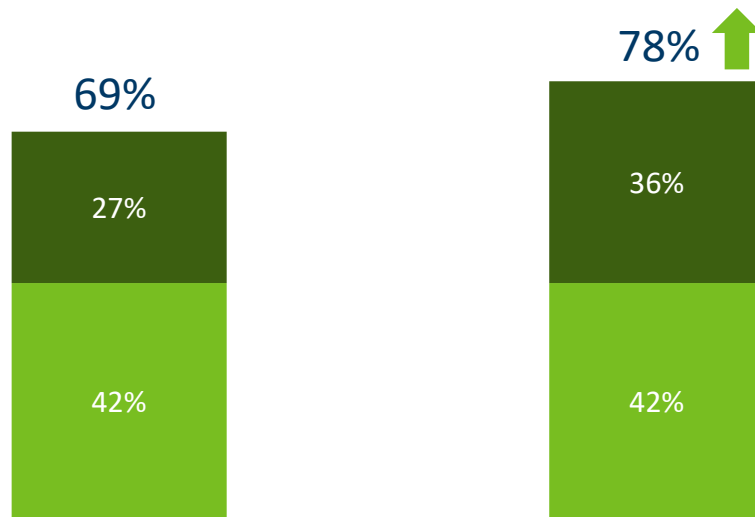
- **Women** are significantly more likely than men to:
 - Support improvements to State-owned roads to make it easy and comfortable to walk (78% vs 69%)
 - Support improvements to State-owned roads to make it easy and comfortable to bicycle (76% vs 66%)
 - Feel transportation agencies should change the design of roads to slow traffic and improve safety (44% vs. 33%)
 - Be willing to accept more bumpy or rough roads if it meant new improvements for safety (56% vs 46%)
 - Not have taken a trip due to safe/affordable options (18% vs 10%)
 - Transportation projects should start by working with communities to identify strategies that support people's vision, priorities, and needs (92% vs 84%)
 - Feel VMT reduction goals should vary by different parts of the state (52% vs 41%)

Women are more likely than men to support improvements that benefit modes other than vehicles and safe/reliable travel; they are also stronger supporters of getting community input upfront and customized goals

- **Men** are significantly more likely than women to:
 - NOT support the goal of VMT reduction (21% vs 12%)
 - Disagree that the transportation agencies should support and encourage teleworking and other remote options like telemedicine (21% vs 11%)
 - Disagree that the transportation agencies should change the design of roads to slow traffic and improve safety (44% vs 33%)
 - Disagree that Minnesota needs more and better intercity bus transit options (27% vs 16%)
 - Disagree that the Minnesota needs more and better intercity passenger rail options (24% vs 16%)
 - Disagree that the Metro area/Greater MN needs more and better transit options
 - Metro area:(19% vs 11%)
 - Greater MN:(22% vs 13%)

Women more likely than men to support improvements that benefit active transportation (e.g., walking and bicycling)

Support improvements for walking

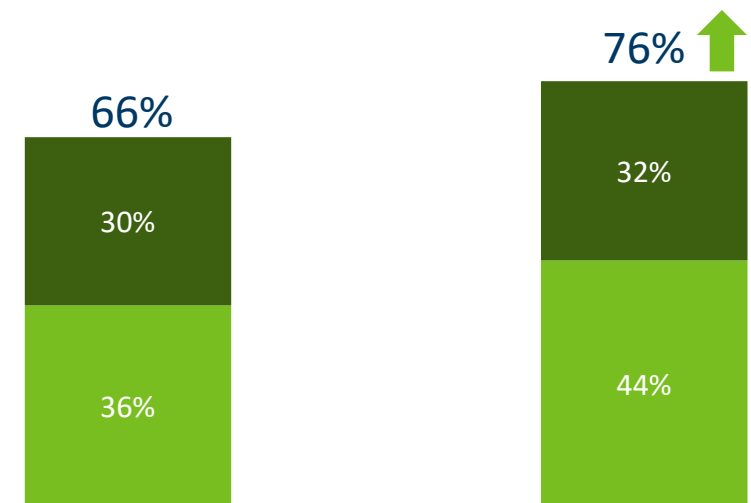


Men

Women

■ Agree Somewhat ■ Agree Strongly

Support improvements for bicycling



Men

Women

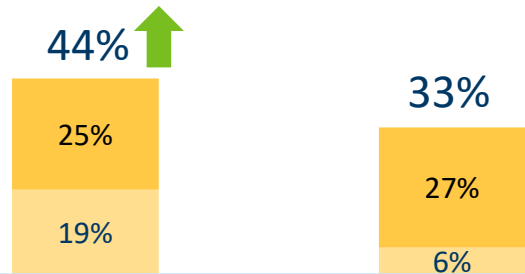
■ Agree Somewhat ■ Agree Strongly

Full Statements:

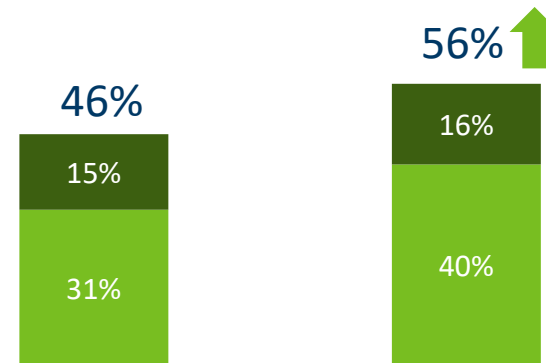
- I support improvements to State-owned roads to make it easy and comfortable to walk
- I support improvements to State-owned roads to make it easy and comfortable to bicycle

Women are more likely than men to support actions that lead to safer travel and to have been impacted by a lack of safe/affordable transportation options recently

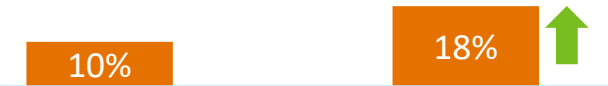
Disagree - Support road design that slows traffic and improves safety



Would accept bumpy roads if it meant improved safety



Experienced lack of safe/affordable transportation option in the last month



■ Disagree Somewhat ■ Disagree Strongly

■ Agree Somewhat ■ Agree Strongly

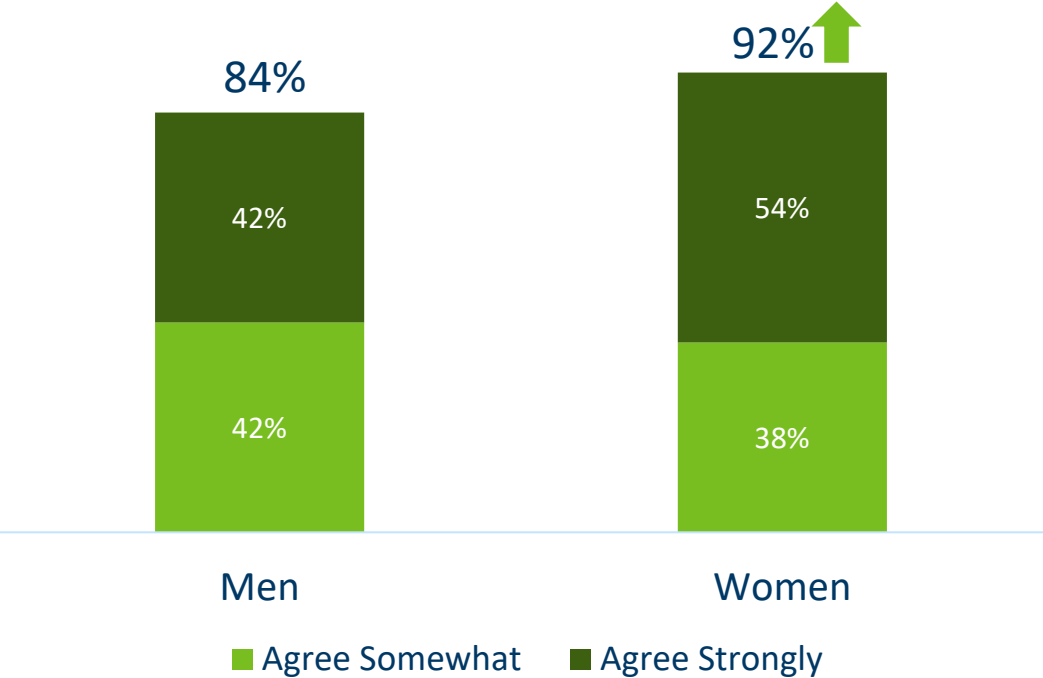
■ Yes

Full Statements:

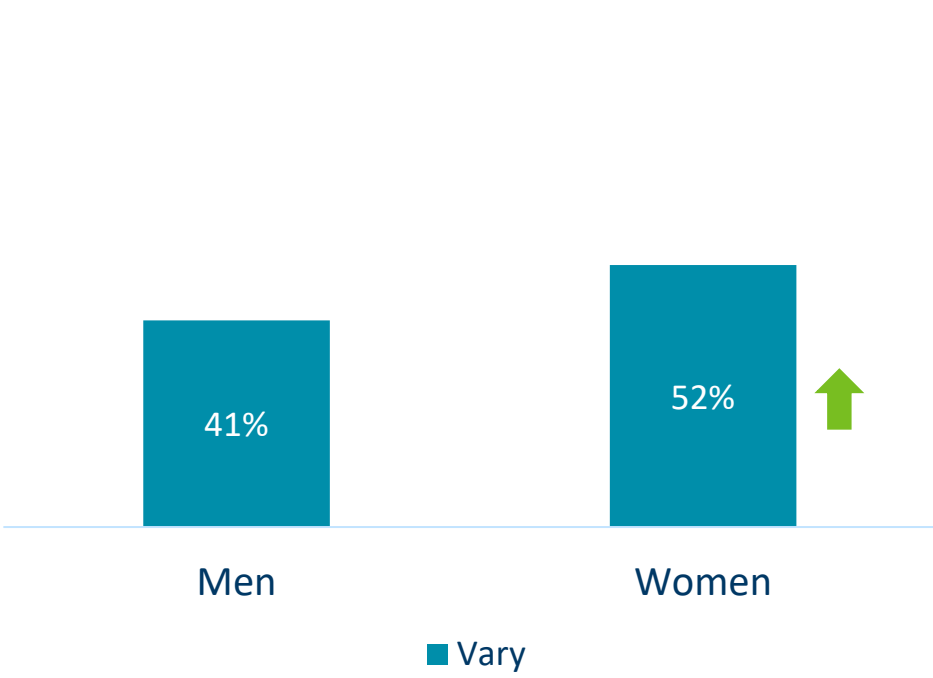
- Transportation agencies should change the design of roads to slow traffic and improve safety
- I would be willing to accept more bumpy or rough roads if it meant new improvements for safety
- In the last month, have you ever not taken a trip because you lacked a safe or affordable transportation option?

Women are more likely than men to support community efforts and customized goals (e.g., start projects with community input, vary VMT reduction goal by parts of the state)

Transportation agencies should work with communities



VMT reduction goals should vary by different parts of the state



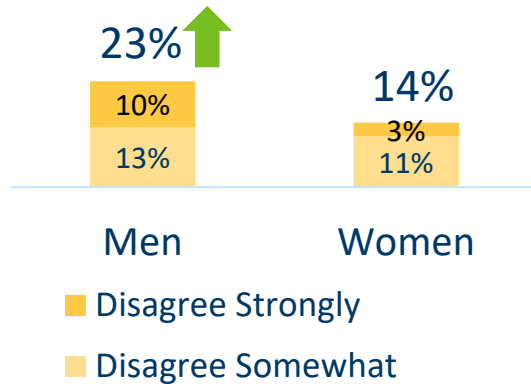
Full Statements:

- Transportation projects should start by working with communities to identify strategies that support people's vision, priorities, and needs
- Do you feel this goal should be consistent across the state or vary by different parts of the state?

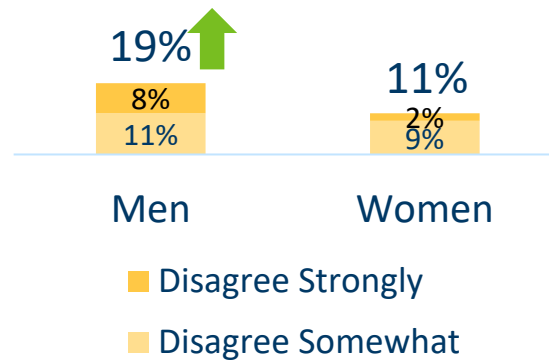


Men are somewhat more likely than women to disagree that there is a need for better public transit

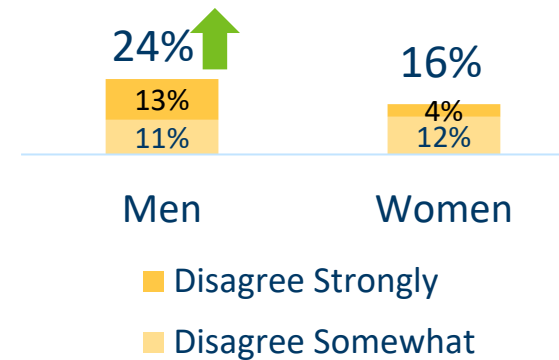
Disagree - Need better transit in Metro



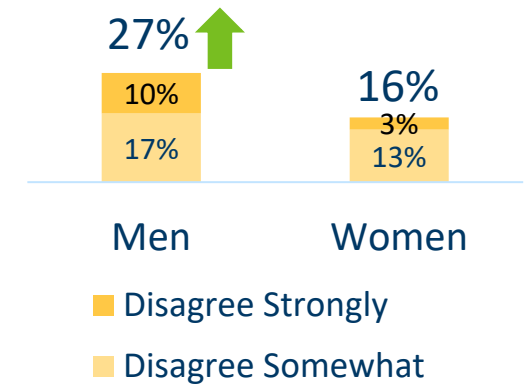
Disagree - Need better transit in Greater MN



Disagree - Need better intercity passenger rail options



Disagree - Need better intercity bus options



Full Statements:

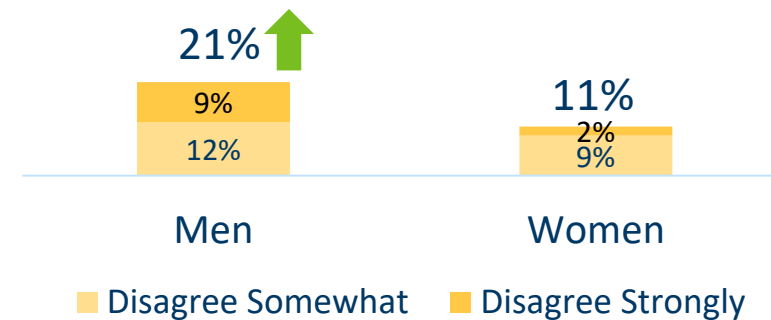
- The Metro area needs more and better transit options
- Greater Minnesota needs more and better transit options
- Minnesota needs more and better intercity passenger rail options
- Minnesota needs more and better intercity bus transit options

Men are more likely than women to not support a VMT goal of any kind and to disagree that transportation agencies should support teleworking

Disagree - MN should set a VMT goal of any kind



Disagree - Transportation agencies should support teleworking



Full Statements:

- Do you feel this goal should be consistent across the state or vary by different parts of the state?
- Transportation agencies should support and encourage teleworking and other remote options like telemedicine
- Transportation agencies should change the design of roads to slow traffic and improve safety

REGION

Differences surfaced between those who live in Greater MN (n=252)
compared to the Metro (n=413)

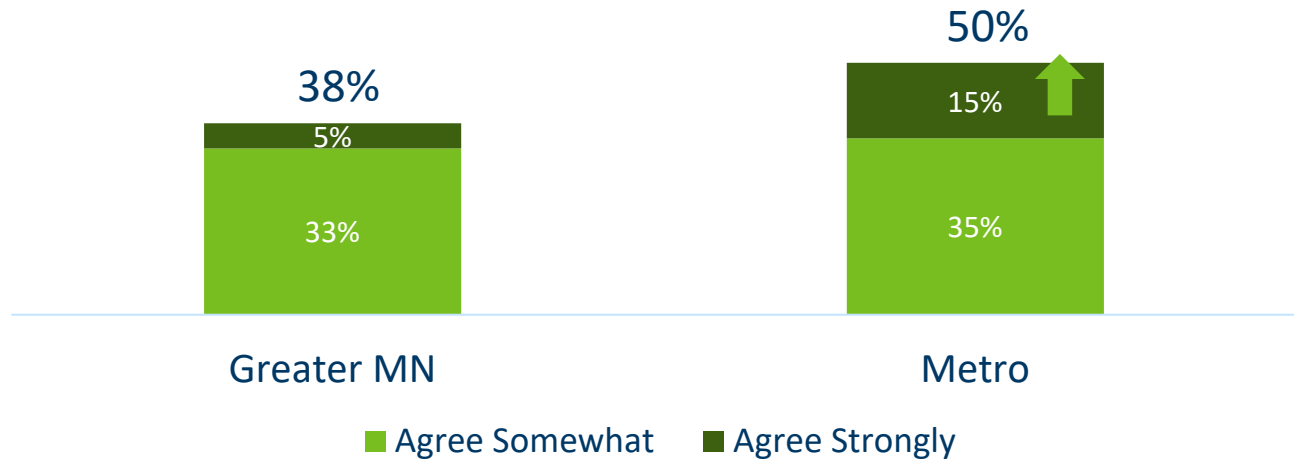
Unweighted counts (n) are shown here.

There were relatively few substantive differences by region

- **Individuals living in the Metro District** are more likely than those in Greater MN to:
 - Be willing to accept more bumpy or rough roads if it meant new improvements to provide more reliable travel times (50% vs 38%)
- **Individuals living in Greater MN** are more likely than those living in the Metro District to:
 - Be unsure if Minnesota needs more and better intercity bus transit options (19% vs 10%)
 - Be unsure if Minnesota needs more and better intercity passenger rail options (20% vs 9%)

Residents from the Metro are more likely than those in Greater MN to accept bumpy roads if it meant there would be more reliable travel times

Would accept bumpy roads if it meant more reliable travel times



Full Statements:
• I would be willing to accept more bumpy or rough roads if it meant new improvements to provide more reliable travel times

Greater MN residents are more likely to be unsure about the need for better bus and rail options

Not sure - Need for better intercity bus options



Not sure - Need for better intercity passenger rail



Full Statements:

- Minnesota needs more and better intercity passenger rail options
- Minnesota needs more and better intercity bus transit options

MODE

Differences surfaced by which modes of travel people use regularly:

- ✓ Driving (n=579)
- ✓ Walking (n=313)
- ✓ Bicycling (n=122)
- ✓ Public transit (n=121)

Unweighted counts (n) are shown here.

Those who rely on driving their vehicle alone are the least open to investing in other options, even cleaner vehicles

- Those who **drive solo regularly** are the least likely to:
 - Want transportation partners to promote EV infrastructure (72%)
 - Agree Minnesota needs more and better intercity passenger rail options (66%)
 - Agree Minnesota needs more and better intercity bus transit options (64%)
 - I support improvements to State-owned roads to make it easy and comfortable to bicycle (71%)
 - Agree Transportation agencies should give excess land back to communities including tribal nations (41%)

Those who regularly drive alone are less likely than others who use other modes to support EV infrastructure, intercity transit options, improvements that benefit bicycling, and/or returning excess land back to tribal nations

Policy Agreement	Drive Alone (n=579)	Walkers (n=313)	Bicyclers (n=122)	Transit Users (n=121)
Transportation partners should promote EV infrastructure	72% ↓	79%	87%	87%
Minnesota needs more and better intercity passenger rail options	66% ↓	72%	79%	80%
Minnesota needs more and better intercity bus transit options	64% ↓	71%	79%	84%
Make it easy and comfortable to bicycle	71% ↓	79%	82%	82%
Agencies should give excess land back to communities including tribal nations	41% ↓	48%	61%	56%

These are not mutually exclusive groups



Phase 2: Online Discussion Forum

Phase 2 Approach

This qualitative discussion, using a bulletin board platform, was conducted with between October 28 and November 11, 2021:

- 52 participants joined the discussion.
- 42 participants completed the discussion.
- A discussion guide was programmed onto the research site.
- The platform allowed the moderator to control when questions were ready for viewing/responses and to probe and clarify responses.
- It also provided participants the ability to review and respond to posts made by other participants, once they posted their initial reply.
 - This process makes it possible to capture unbiased individual sentiments and thoughts first.
 - It also provides a way for participants to see the range of perspectives firsthand and engage with others who have a shared experience or a different perspective.

For more detail on recruiting and sample selection, see the appendix.

Phase 2 Approach (continued)

- For this discussion, the guide consisted of two sets of questions (referred to as “days”):
 - The first set of questions were opened for responses on October 28th.
 - The second set were opened on November 2nd and the platform remained open until November 11th.
 - Participants were asked to use the time in between to review other posts to the first set and reflect on the topic areas.
 - Participants were also encouraged to review the posts of others after the 2nd set until the board closed.

Phase 2 Highlights

- Most participants currently rely on car travel, driving a car at least weekly if not daily.
- Many seem open to the idea of sharing rides but do not currently because of limited access, cost, inconvenience, and an inability to mesh service with individual schedules.
 - Several respondents listed situations in which ridesharing does not work well (e.g., varying work schedules, drop-off or pick up at childcare, etc.).
 - Some also feel uncomfortable riding with strangers.
 - Some had suggestions on how to make ride-sharing more feasible:
 - Ride share services with set destinations, where vehicles always operate, vehicles end up full and fees are then lowered,
 - A mini-bus to pick up elderly for doctor appointments,
 - More Uber or Lyft drivers (without fear of not getting a ride or being canceled),
 - More guaranteed safety and quicker response times,
 - Improved ride-share messaging services or apps,
 - More cars equipped with car seats for kids, and
 - Lower prices.

Phase 2 Highlights (continued)

- Respondents would use transit (light rail/bus) options more often if:
 - There were more routes and more frequent trips.
 - This type of travel felt safer or was less expensive.
 - Some suggestions to increase usage of public transit include:
 - More routes to cover suburbs,
 - A train/light-rail map app that allows you to pick your destination where it tells the route options and amount, time required,
 - Better synchronization of schedules at transfer points, and
 - More measures to make travel safe/healthy (from Covid, etc.).

Phase 2 Highlights (continued)

- Many people consider active transportation unrealistic.
 - Many only walk or bicycle for exercise.
 - For many, the distance from point-A to point-B is too great and/or the window of time too small to use these modes for many of the trips they need to make.
 - Some also consider walking, wheeling or bicycling to be relatively unsafe.
 - Even fans of these modes note the difficulty the weather poses and how it limits the number of months walking, wheeling or bicycling is viable.
 - Some specific suggestions to increase usage include:
 - More paths sufficiently separated/safe from cars,
 - More well-lit routes/paths,
 - More community education, and
 - More shared scooters and bicycle programs (including in Greater MN).

Phase 2 Highlights (continued)

- More experienced teleworking in the last year due to COVID-19 changes and many of these individuals would welcome more of it.
- There are obvious logistical issues for some:
 - Limited or spotty Internet,
 - Hands on jobs or jobs that requires in-person interactions, and
 - Decisions being in the hands of the employer and not a personal decision.
- One universal suggestion on how to increase teleworking is ensuring fast, reliable Internet access in more areas.

Phase 2 Highlights (continued)

- When shown results from the phase-1 online survey (with a representative sample of MN residents), some respondents were surprised by the overall level of support for emission reduction goals and expected more variation in support across parts of the state (e.g., Metro vs. Greater MN). Most seemed happy to see that level of support.
- Many think more stringent goals in the Metro area make sense, even when they live in the Metro area, due to volume of traffic and access to more transit options.
- There are some factors besides “vehicle miles traveled” that people think should be considered when setting and measuring emission reduction goals. Some examples include:
 - Line of work (farming, traveling nurse, etc.),
 - Availability of public transit, and
 - Time in vehicle (which includes idle time running, time spent in slow moving traffic, and time driving).

Phase 2 Highlights (continued)

- When goals are vague and do not specify sacrifices that need to be made and/or how changes might impact individual citizens, it is easy to agree with them and still want convenience.
 - Many people initially assume that there is little to nothing they can do if they live in an area that does not lend itself well to walking, bicycling or public transportation.
 - And those who do have access often default to thinking about how they do things now, without considering how they could modify the quantity or quality of trips.
 - Some (but not all) realize that it is not possible to reduce emissions without a meaningful shift away from driving (which may require a lifestyle change).
 - During the discussion, people started thinking about small changes they could make:
 - Planning and pooling trips better, to make fewer trips and reduce the total miles traveled,
 - Looking for ways to share-rides,
 - Shopping or living closer to places they go, and
 - Thinking about new technology for vehicles they use and/or shared rides.

Phase 2 Highlights (continued)

- When asked for top-of-mind reactions to what a fair and just transportation system would be like, the initial reaction for many was about how Greater MN does not have access to the same types of services as the Metro area.
 - Very few brought up anything to do with race, gender identity/sexual orientation, or income on day-1.
- Similarly, when thinking about connecting communities, many respondents focused on ways to connect urban, suburban, and rural communities.
 - There were also some comments about improving transit for lower-income areas.
- Broadening access to locations and transit is a common refrain when discussing breaking down barriers.
- When thinking of reducing physical barriers, adding more transit access and pedestrian walkways surfaced, along with better wheelchair accessible options (sidewalks, etc.).
- Many voice support for increasing safety, even if it means slowing traffic. Some support updated road designs but say their support would soften if safety improvements required a lot of new construction.
- Few respondents have lacked affordable/safe transportation personally, but those who have cite inconvenience and feeling unsafe on public transit including concerns about COVID-19.

Phase 2 Highlights (continued)

- After the first day of discussion topics, many respondents noted how the board got them thinking about their own carbon footprints as well as the urban versus rural divide.
- Most of the participants feel they could reduce their personal GHG emissions by combining individual trips and choosing closer shops/services.
- When forced to think about impacts from infrastructure or system changes that would reduce GHG emissions, the impacts they could most readily accept would be increased transit traffic, shifting resources toward reduction, and converting lanes to support other modes.
- Cost is a common restriction regarding changing into more sustainable habits, especially for electric vehicles.
 - Several people noted that not all who want to take actions, like buy a more efficient vehicle, have the financial means to do that today.
- When asked to ponder who is responsible for GHG emission reduction, the net result is that it is clearly a shared responsibility between MnDOT/other agencies, individuals, and businesses.
 - About one-quarter feel that MnDOT needs to assume most of the responsibility.

Phase 2 Highlights (continued)

- Some respondents want to see other actions encouraged to increase GHG emission reduction:
 - More electric vehicle infrastructure,
 - More green technology in general,
 - Contractors repairing roads using emission friendly equipment and minimizing other potential contributors (time to complete work, etc.),
 - Holding businesses to higher standards in specific ways, and
 - Broadening options so all who are willing to help, can.

Phase 2 Highlights (continued)

- When presented with MnDOT's definition of 'fairness,' which is centered around historically underserved populations (based upon gender, race, sexual orientation, etc.), most considered it a positive.
- Similarly, most people are supportive of MnDOT's definition of 'justice,' though there remains some cynicism that either definition can or will result in a change in how things are done.
- Specific actions that would make the system more equitable include:
 - A more robust transit system to help connect communities, and
 - Free public transportation – which could also help achieve the GHG emission reduction goals.
- However, there are a few who think everyone should pay their fair share, there should be no specific references or priorities given to segments, and we should just let it work itself out.

Phase 2 Highlights (continued)

- When asked to ponder who is responsible for transportation safety more assume MnDOT should take the lead.
 - MnDOT's responsibility lies in creating effective and safe infrastructure, but individuals also need to do their part, along with law enforcement, to make it work.
- Nearly half feel that transportation policy, plans, and service impact their quality of life, and it is most often a mix of positive and negative.
 - Many view the headaches of construction worth improved, safer infrastructure.

Phase 2 Highlights (continued)

- In conclusion, there is a great deal of support for GHG reduction goals:
 - Those in the more densely populated areas assume more responsibility for reducing their personal vehicle usage because they have more viable options (better public transit, the ability to consider ride-sharing, and a better infrastructure to telework).
 - There is a shared appreciation for the difficulty individuals living in rural Minnesota have in making the same changes, since the opposite is largely true.
 - However, those in both locations are still largely tied to their cars:
 - Partly because the alternatives are far from perfect and not all modes are safe enough to use widely or year-round;
 - It is so convenient and a deeply rooted habit to travel by car wherever/whenever people want, at a moments notice.
- While most feel MnDOT and other agencies should play a role in establishing the necessary infrastructure and “paving the way” for greener, safer systems:
 - Exactly how MnDOT and others should go about this is where there is less clarity and consensus, and
 - What people are willing to do or accept is influenced by what is viable today.

Phase 2 Highlights (continued)

- When it comes to willingness to radically change personal behavior, intent softens because the incentives and structures in place today do not encourage it.
 - Some recognize it will need to be noticeably more “painful” to drive in order to stop people from choosing a personal vehicle as the default mode of travel.
 - Even those who sincerely approve of making it less convenient say there is a realistic limit to what they can or will do today because of the huge gap in costs and benefits between cars to other modes (in favor of the car).
 - They are more willing to support things that don’t impact them directly today (increased transit traffic, shifting resources, and converting lanes) and are less enthused about higher priced cars or fuels or less convenient driving or parking.
 - There are also a handful who articulate how foolish such goals would be if other countries or businesses are not doing their part.
 - However, over the course of the discussion there seemed to be some collective agreement that almost everyone could do better in some way.

Phase 2 Highlights (continued)

- The conversation about what a fair and just transportation system might look like shed light on the fact that the top-of-mind reactions tend to be centered around regional differences across the state, but that there is a general agreement with the goal for increased equity across segments of individuals.
 - As noted, some are worried that the current definitions sound great but will not translate to action or actual changes.
 - And a handful would rather focus on equal services/systems for all, rather than equitable ones.

Phase 2 Highlights (continued)

- After participating in the board, many were happy to have a platform to share opinions and had more awareness of others' struggles. Some also cited changes they plan on implementing in their daily lives.
- While this type of discussion may not change preferences markedly, it may increase the awareness and understanding of individual differences and create an appreciation for how there can be shared goals that may require segmented solutions (and how difficult it can be to achieve those goals).

Phase 2 Process Observations

- When people are anonymous (except for a first name), and have/get to post their own thoughts before they see others:
 - It provides a level of freedom that allows for a full range of honest, top-of-mind thoughts (e.g., without the initial group bias, individual dominance or hierarchy).
 - It seems to increase civility and thoughtfulness in responses because they know others will ultimately get to see what they post, and they may be asked to clarify or expound on their ideas.
- A moderate, reasonable incentive increased the participation rate (compared to a past MnDOT discussion board conducted where no incentive was used):
 - More of the harder to reach joined in.
 - More of those who started, finished.
 - Response rates were typical of studies conducted in the private sector using higher incentives.
- When planning discussions, it is always important to weigh the amount of time between the recruitment phase (in this case, the online survey) and the start of the discussion:
 - Less time between the recruit and start of the discussion tends to increase response.
 - It is important to note that too many participants will decrease the quality of the discussion.
 - More time between the recruit and start of the discussion allows for additional team reflection about the initial results and a greater ability to use the discussion to build upon earlier insights.
 - This discussion provided a nice blend of the two and quantity and quality goals were met.

Phase 2 Participants

Participant Demographic & Attitudinal Characteristics

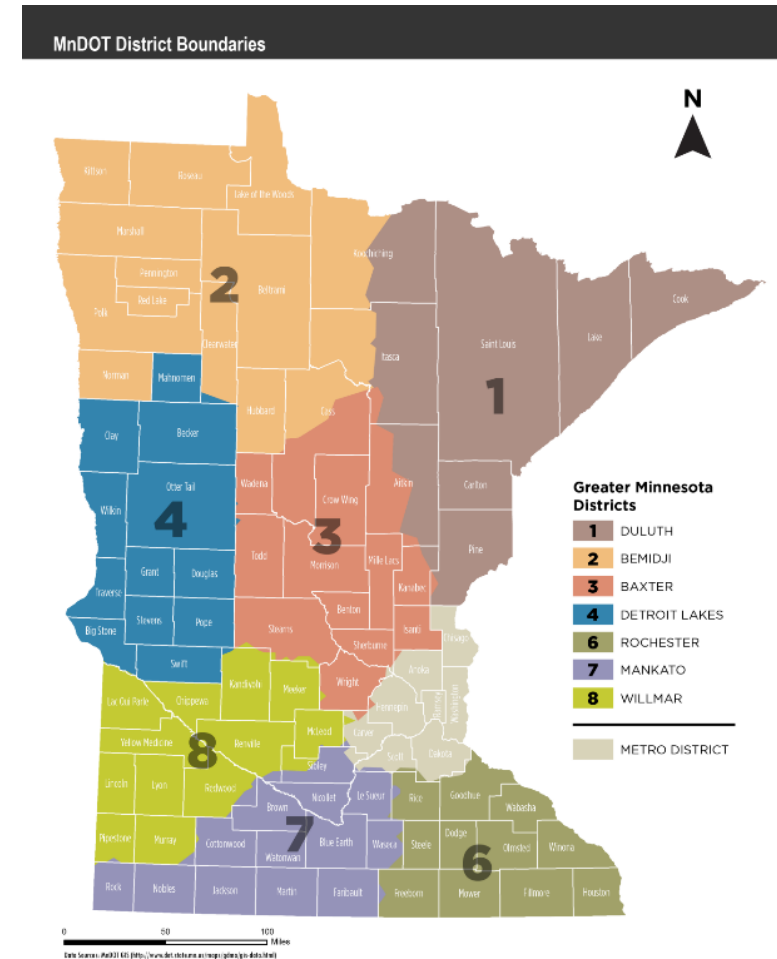
Counts	Total (n=52)	Counts	Total (n=52)	Counts	
<u>Age:</u>		<u>*Race:</u> [multiple response]		<u>**Online Survey Attitudes:</u>	
18-34	16	Not only white:	16	Favor Individual Cars	32
35-54	22	<i>American Indian or Alaska Native</i>	3	Favor Public Transit	20
55+	14	<i>Asian</i>	7	In support of VMT reduction	41
<u>Gender:</u>		<i>Black or African American</i>	4	Not in support of VMT reduction	11
Female	27	<i>Hispanic</i>	2	Agree with Fair/Just statement	45
Male	22	White only / non-Hispanic	36	Disagree with Fair/Just statement	7
Gender diverse/etc.	3	<u>Groups:</u>			
		Served in Armed Forces, Reserves or Guard	2		
		Have a mental or physical disability	11		

*Race is asked as a multiple response category with a Hispanic overlay. The results shown here are the percentage who classify themselves as any of these races (as the only or as one of multiple races). For weighting purposes, the race categories must be mutually exclusive. Each person is classified in only one way. Hispanic (any) is the first category, followed by each of the other races. The last category is those who are white only and not Hispanic. That percentage is shown in the bottom row of the table for reference. This is standard protocol and the same process used for the Omnibus study.

**An effort was made to represent a range of views in the discussion.

Participants Regions and Districts

Region:	Participated	Invited
Metro	28	64
Greater MN:	24	52
• D1	3	7
• D2	0	3
• D3	7	13
• D4	2	5
• D6	5	12
• D7	5	7
• D8	2	5



*NOTE: All of the participants who said, “yes,” they were interested in participating within Greater MN were invited to join the conversation.

Who, specifically, participated?

- **Sarah G:** lives in Minneapolis. Bus rider, train rider, walker, Hourcar user. (Metro D: 35-54, white, female)
- **Nai X:** lives in Lakeville and works from home. (Metro D: 35-54, Asian, female)
- **Katie G:** lives in Brainerd. Solo driver; drives her kid to school 2x week. (D3: 35-54 White Female)
- **Vijay S:** lives in Blaine and works in Minneapolis. Solo driver and transit user. (Metro D. 35-54, Asian, male)
- **Natasha C:** lives and works in Mankato. Solo driver. (D7. 18-34, white, female)
- **Noella M:** lives in the Twin Cities. Drives with her spouse as she does not have a full driver's license. (Metro D, 18-34, white, female)
- **Richard H:** Retired and lives in Mahtomedi. Solo driver and walker. (Metro D, 65+, white male)
- **Mark K:** lives and works in Duluth. Solo driver. (D3, 35-54, white, male)
- **Jessie W:** resides in Owatonna. Family has a truck and an SUV. (D6, 35-54, whit, female)
- **Anna W:** student in Northfield. Solo driver but also bikes for recreation. (D6 18-34, white, female)
- **Michelle B:** lives in Apple Valley; drives to/from work daily. (Metro D, 35-54, white, female)
- **Barb C:** lives in northeastern MN. Solo driver, though drives less due to pandemic. (D8 55-64, white, female)
- **Brice B:** resides in South Central Minnesota and drives a pickup truck to work 4 days a week. (D8 35-54, white, male)
- **Titi T:** lives in Minneapolis and drives a 40-minute commute M-F. (Metro D 35-54, Asian, female)
- **Mark P:** lives in rural Stearns County. Drives 20 miles to/from work M-F. (D1 18-34, white, male)
- **Cindy W:** lives in a rural area of Sherburne County. Drives an SUV as main mode of transport. (D3, 55-64, white, female)
- **Brandon P:** lives in Washington County and is a stay-at-home father. Walks or drives with his wife. Working on getting his license again, as he has epilepsy and hasn't driven for a while. (Metro D 35-54, native, white, man)
- **Jabri W:** lives in Minneapolis. Solo driver who also walks often and takes Metro Transit. (Metro D 18-34, black, non-binary)
- **Thomas G:** retiree who lives in Andover. (Metro D 55-64, white, male)
- **Hideki:** lives in West Saint Paul. Solo driver whose family uses Lyft occasionally. Retied but used light rail to get to work previously. (Metro D 55-64, Asian, male)
- **Shayla C:** lives in Minneapolis; studies and works. Uses personal car and the bus. (Metro D 18-34, white, non-binary)
- **Patty B:** retiree who lives in Shakopee. Has an SUV which is used for hobbies and recreation. (Metro D 65+, white, female)
- **Sydney B:** U of M student who lives in the western Metro. Commonly uses the bus and light rail. (Metro D, 18-34, white, female)
- **Mary W:** lives in Faribault; drives for transport and boats in the summer for recreation. (D6 55-64, white, female)
- **Greg N:** retiree who lives in Forest Lake. Solo driver. (Metro D 65+, white, male)

Who, specifically, participated? (continued)

- **Christine:** lives in Mound. Drives to work but uses the public bus to get to appointments in the Cities. (Metro D 35-54, Asian, female)
- **Carla P:** lives in Hennepin county. Drives, ride shares, walks, carpools. (Metro D 18-34, Hispanic, white, female)
- **Aaron C:** lives in Woodbury. Usual mode is personal car but also bikes and walks when weather allows. (Metro D 35-54, white, male)
- **Dani S:** lives and works from home in NE Minneapolis. Doesn't have a car so uses public transit or ride shares. (Metro D 35-54, black, white, female)
- **Steve:** lives in Saint James. Drives his car to work as an educator. (D7 35-54, white, male)
- **Stephen K:** lives in Sauk Rapids. His family has two personal cars: one sedan and one minivan. (D3 35-54, white, male)
- **Lisa K:** lives 20 minutes from Saint Paul. Solo driver who walks for recreation. (Metro D 35-54, Asian, female)
- **Kris S:** lives in Sandstone and mostly uses his truck. (D1 18-34, white, male)
- **Dave B:** retiree from Mankato who uses various methods of transport. (D7 35-54, white male)
- **Ty J:** lives in Sherburne County and drives daily. (D3 18-34, native, male)
- **David R:** lives/works in Mankato. Primarily drives a minivan. (D7 55-64, white male)
- **Jill H:** lives in Winona County. Mostly walks currently as her oldest son uses the car daily. (D6 35-54, white, female)
- **Julie R:** lives in Columbia Heights. Drives a sedan and works from home. (D3 55-64, white, female)
- **Kayoua X:** lives in downtown Saint Paul and is a solo driver. (Metro D 18-34, Asian, female)
- **Beniyam T:** lives in Twin Cities and is a solo driver. (Metro D 18-34, black, male)
- **Eddie H:** live in south suburbs of Minneapolis and is a solo driver. (Metro D 35-54, white, male)
- **David R:** lives in Mankato and drives an SUV. Travels throughout the state regularly for work. (D7 55-54, white, male)
- ***Keanu H:** student at CSBSJU. Solo driver and uses bus provided by school. (D3 18-34, native, man)
- ***Alix H:** lives in Blaine and is a solo driver. (Metro D 55-64, white, male)
- ***Jourdan L:** lives in Saint Cloud, drives to work as a middle school teacher. (D3 18-34, white, male)
- ***Kathleen K:** lives in Moorhead and shares car with her husband. Is disabled and spends most of her time at home. (D4 35-54, white, female)
- ***Kelly J:** retiree who lives in Rochester and is a solo driver. (D6 55-64, white, female)
- ***Kristen O:** lives in Minneapolis and uses light rail and the bus a few times a week. (D3 25-34, white, female)
- ***Shelley A:** lives in Slayton. Drives to work daily in an SUV. (D8 55-64, white, female)
- ***Brooke H:** lives in Hugo. Solo driver whose car was stolen recently and is now relying on transit. (Metro D 18-34, white, female)
- ***Tiffany F:** lives in Moorhead, near North Dakota border. Solo driver. (D4 35-54, white, female)
- ***Tim R:** lives in Rosemount and is a solo driver as well as a walker and biker. (Metro D 35-54, white, male)

Focus of Day-1 Discussion:
*understanding habits, reviewing survey results
and clarifying ratings/responses*

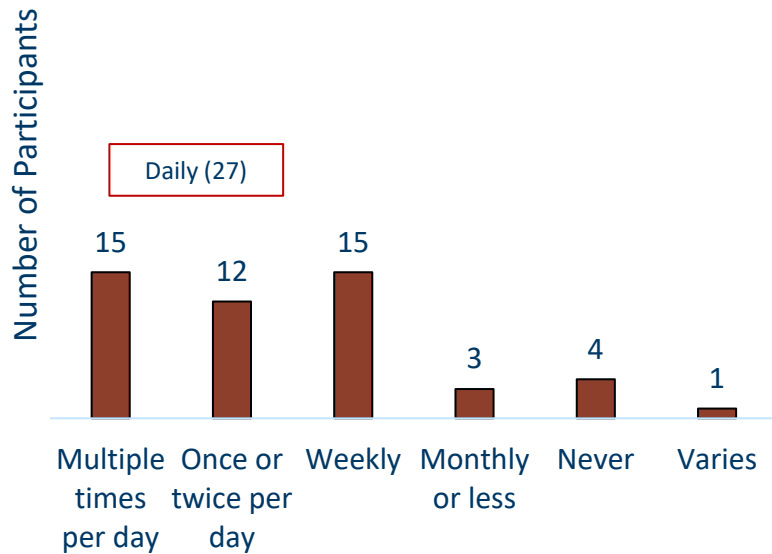
DAY 1: Travel Habit Questions

Travel Habits: (Participants were encouraged to think a little broader than COVID-19 window).

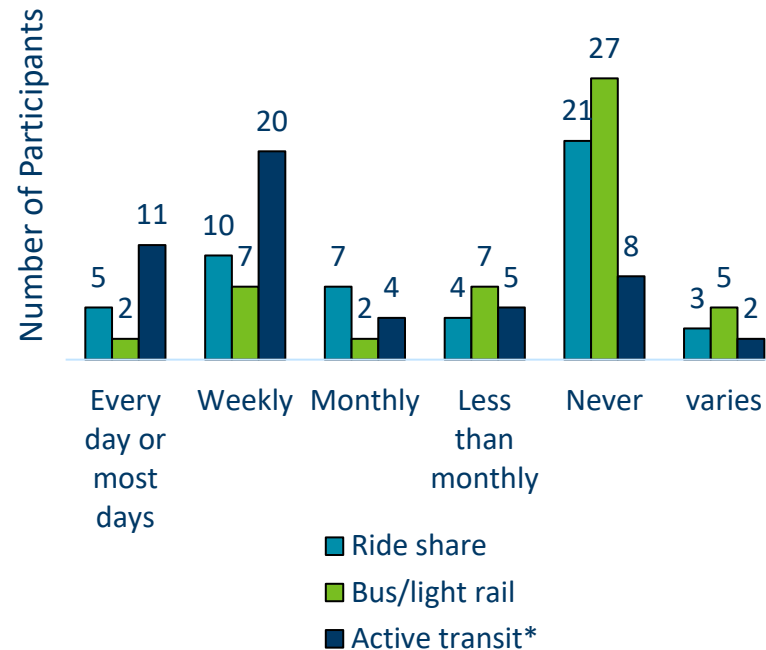
- a. On average, how often do you **drive** alone in a vehicle (car, SUV, truck, and motorcycle)?
- b. As noted in the survey, one way to reduce greenhouse gas emissions is to increase transportation options that make it easier for people to travel fewer miles in cars, SUVs, trucks, and motorcycles. How often, if ever, do you **rideshare** (e.g., carpool or ride with someone else or share an Uber/Lyft or taxi)?
 - What, if anything, limits your willingness or ability to do this more often?
 - Where might more or better options/services help you increase your ridesharing and reduce the miles you (or others in your community) drive?
- c. How often, if ever, do you use either **bus or light rail transit** modes?
 - What, if anything, limits your willingness or ability to use these more often?
 - Where might more or better options/services help you increase the use of these “modes” and reduce the miles you (or others in your community) drive?
- d. How often, if ever, do you **walk, bicycle, or use a wheelchair/personal mobility device**?
 - What, if anything, limits your willingness or ability to do this more often?
 - Where might more or better options/services help you increase these “modes” and reduce the miles you (or others in your community) drive?
- e. How often, if ever, do you **telework or telecommute**?
 - What, if anything, limits your willingness or ability to do this more often?
 - Where might more or better options/services help you increase your teleworking/telecommuting and reduce the miles you (or others in your community) drive? NOTE: If this is your sole mode of working, you can note that here.

Most participants drive a car daily or at least weekly; about half telework at times but the frequency varies, most walk/bicycle/wheel somewhere at least once per week, and more than half never take the bus or light rail.

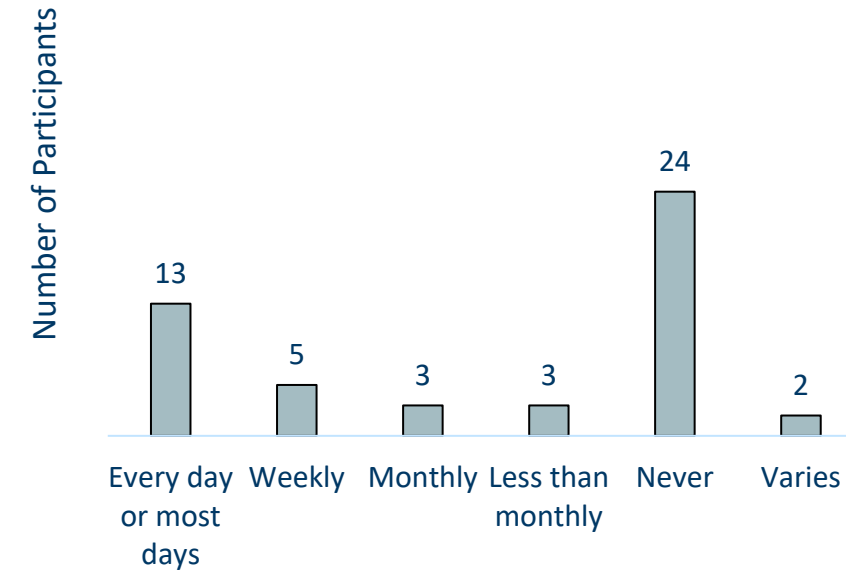
On average, how often do you drive alone in a vehicle?
(n=50)



On average, how often do you use each of these modes of transportation?
(n=50)



On average, how often do you telework?
(n=50)



*Active transit includes walking, bicycling, or using a wheelchair/personal mobility device

Access and customized needs (e.g., work schedules, childcare, etc.) are reasons respondents do not use rideshare or carpool options more often. Some also feel uncomfortable riding with strangers.

- **Christine:** “I am not sure whether Uber/Lyft is available where I live. I cannot share a ride with co-workers going to work as we have different schedules in leaving the workplace considering that I only work part-time and most of my co-workers are full-time workers.”
- **Steve:** “Geographically I am limited to sharing a ride due to the greater distances between towns.”
- **Anna W:** “I don't live in the metro, so Uber/Lyft is hard to find where we are. I wish I was less car-dependent than I am, but public transit is little to nonexistent where I am.”
- **Katie G:** “I seldom have to leave my house since I work from home. The only times I have to drive are when bringing my kiddo to school or bringing her home, appointments, or grocery shopping. Most of the people I know in this area have different schedules, so we don't have the ability to align trips together”
- **David C:** “Convenience as well as cost. While I don't travel often when I do my daily commute. I generally drop off my kid and head to work shortly thereafter. ridesharing isn't ideal for transporting a child and it's also not ideal for multiple stops in general. Secondly, I usually need to get to work at a specific time each day and just from a logistical standpoint I cannot really afford to introduce any variables into my morning commute. For myself, I also know that as a parent I would be very uncomfortable if in the event of an emergency with my kid if I had to order an uber or something to be there for her, so I likely wouldn't give up my personal transportation.”
- **Natasha C:** “It's difficult to rideshare with a young child in daycare. I can't rely on having a Lyft or Uber driver available when I need to pick my daughter up in the middle of the day. Also, most drivers don't have cars eats for children.”
- **Ty J:** “My location compared to my coworkers definitely limits our carpooling. As for ridesharing, I generally only use those apps for going to concerts or sporting events,”
- **Julie R:** “Working from home, I don't need to be in a vehicle often.”
- **Barb C:** “Many workers in my community travel from neighboring communities to work here, as it's a regional hub. More park and ride options and coordinated ride sharing arrangements could reduce miles driven for those with regular schedules.”
- **Kelly J:** “Since I retired, I really don't have specific destinations that would allow for car pooling. Too, my car trips are invariably shorter, such as simply running errands, that kind of thing, and that doesn't lend itself to ridesharing.”
- **Aaron C:** “There doesn't seem to be a great solution for ride sharing to and from work for me.”
- **Mary W:** “I wish I could carpool not no one lives way out by us.”
- **Stephen K:** “It just doesn't make sense for me; and I am a reserved person.”
- **Noella M:** “There aren't a whole lot of people/options for me on the Metro Transit Carpool website, and I don't really know how else to find people (no one I work closely with lives in the same area of the cities as I do). I also am hesitant about riding with strangers, especially with COVID-19 existing.”

Some specific suggestions about how to make ride-sharing more feasible centered around more efficient, affordable rides and pre-planned or more reliable service.

- **Hideki:** “If the ride share service can truly become a ride "share," e.g., they can pick up passengers to fill the vehicle to the full capacity instead of just carrying a single or single group of passengers, and as a result a lower fee becomes the case, we would be more open to using the ride share in more diverse situations. Maybe certain ride share services can have the set destinations or areas where these vehicles always operate. For set destinations a route can be set up in a loop, for instance. Very generally, some examples include:
 - MSP Airport - Shopping Area A - Shopping Area B - Downtown - Shopping Area C - MSP Airport
 - Suburban transit station A - Shopping Area A - Shopping Area B - Suburban point B - Shopping Area C - Suburban transit station A
 - Combinations are virtually endless, as you would imagine. If there is a ride route that people can make good use of and can also use a fair number of rideshare vehicles during a set number of hours, then that establishes predictability, which people tend to like (“I know that a ride is available when I want one without having to wait too long”).”
- **Patty B:** “If there were things like a mini-bus to pick up elderly for doctor appointments and more Uber or Lyft drivers I might use it more. There would also be Lyft scooters and bike ride programs.”
- **Jourdan L:** “I don’t know how you would do it, but more guaranteed safety and quicker response times when needed.”
- **Shayla C:** “It would be useful to ride-share for going to work or school, and to do things like grocery shop or go to the mall. If they were organized, affordable rideshares for things like grocery shopping and activities where you could potentially schedule ahead (and allow for groups to share a ride), that is something I would absolutely consider.”
- **Greg N:** “Perhaps a rideshare type bus, like 'Dial a Ride' that exists in some towns outstate.”
- **Mark P:** “Creating a messaging system that helps connect potential people to ride share with. Create an app.”
 - **Jabri W:** “I agree about a messaging system that helps connect potential people to ride share with. I know in other cities I've seen signs on the highway that serve as a sort of advertisement for the service. I'd probably trust it more if there was a website and was advertised to me on social media.”
- **Natasha C:** “More cars equipped to drive smaller children with car seats.”
- **Carla P:** “The price of these services (like Uber and Lyft) has gone up. And drivers can cancel rides at anytime, so it's very unreliable.”
- **Lisa K:** “Lowering the price of ridesharing.”

Respondents would use light rail/bus options more often if there were more lines and the timing was more convenient. For others, this mode would need to be safer, and/or less expensive.

- **Anna W:** “If I lived in the Metro, I'm sure I would use them more. but even hearing from my friends who do live in the metro (and are students at the U), they say the buses don't come frequently enough or are unreliable.”
- **Barb C:** “The local bus schedule is not convenient for when/where I need to travel. There is no light rail available anywhere in northern Minnesota. Bus routes have been further consolidated recently in my local community. I don't see light rail happening here in the near or distant future.”
- **Titi T:** “I would use it more only if it had convenient schedules and would save me time to go to work.”
- **Tim R:** “If public transportation was generally safer, I might be more inclined to use it.”
- **Brice B:** “I don't have much use for these options myself, however, the company I work for does have employees from many surrounding communities that may benefit.”
- **Brandon P:** “I would take the bus more often but in my experience the bus is generally running late, and you never know what diseases are on it with covid-19 and it's delta variant going around. I've seen a lot of unsafe people walking around and heard a lot of things since the pandemic started like one person talking on the phone saying that they found out they have it but it's all a scam to get us to buy masks. I'm not willing to put my family's life at risk.”
- **Hideki:** “We often do not go to the parts of the Twin Cities that are served by the transit. Even if a destination can be reached by the transit, it often requires multiple transfers and is too time-consuming.”
- **Cindy W:** “In a rural area there are no options.”
- **Kelly J:** “I really think that our public transportation here in Rochester is a good option, and, for commuters, there are many outlying parking lots that are serviced by private busing to transport to the downtown area businesses

Some specific suggestions surfaced on how to make public transit more user-friendly.

- **Vijay S:** “I would like metro transit to include more routes to cover suburbs.”
- **Carla P:** “A train/light-rail map app that kind of works like Uber. You pick your destination and it'll tell you your route, amount, time.”
- **Dani S:** “Expanded transit lines and frequency.”
- **Hideki:** “More routes and more frequent service. Better synchronization of schedules at transfer points.”
- **Brandon P:** “If I knew and saw a healthier measures being taken. (I don't like having to change my clothing and shower every time I use the bus because my oldest daughter won't come near me because she's afraid of getting sick.)”
- **Brice B:** “Waking or biking is a slow mode of transportation. It is fine for recreation and enjoyment, but not very useful to get things done. We have significant biking trails and bike lanes throughout our town (in D8).”
- **Lisa K:** “Lowering the price and increasing the reliability (having a schedule that is on time).”
- **Hideki:** “In order to use it more, there would need to be more routes and more frequent service. Better synchronization of schedules at transfer points.”
- **Mark P:** “Have buses run 24 hours a day so they can still be used at night. If busses ran more frequently, I would consider using them because I could use them as work transportation.”
- **Brooke H:** “Maybe if there was a better way to carry groceries on the bus that could help because it really sucks carrying more than a bag or 2 in the bus especially if you have to transfer at all or you have a long walk home once you get off the bus.”
- **Aaron:** “Having stations closer to home would probably make light rail a more practical option for me. I used to live in DC and used the Metro constantly. Much of its appeal was the coverage map and relative closeness of stations throughout the city. The light rail in the Twin Cities has a LONG way to go to be a competitive option to driving. The DC Metro system is far more mature than the Twin Cities' Light Rail so it has an inherent advantage, but I do think it's a model system that should be carefully looked at.”

Though many note walking/wheeling/biking for exercise, active transit is viewed as being too inconvenient, unsafe, and/or weather dependent to be a main source of transportation.

- **Richard H:** “I walk for exercise but not as part of a work commute, as my destinations are too far away to walk, and I work out of my home rather than an office setting. The weather is a limiting factor for walking and biking.”
- **Brice B:** “Walking or biking is a slow mode of transportation. It is fine for recreation and enjoyment, but not very useful to get things done.”
- **Aaron C:** “As a mode of commuting, I rarely bike or walk. It just doesn't make sense in the suburbs. If I lived downtown I would do it all the time. I love to do both. While biking for leisure is pretty doable in Woodbury, I wouldn't want to commute this way given how fast and often erratic people drive in town. People are often speeding and don't pay much attention, especially in roundabouts where awareness of bikers is particularly terrible. Biking in downtown areas is much more feasible, but much less so in suburbs.”
- **Barb C:** “I walk for exercise but not as part of a work commute, as my destinations are too far away to walk and I work out of my home rather than an office setting. The weather is a limiting factor for walking and biking. The hills in my community are a deterrent to biking. Drivers are also not careful or courteous about bikers and it does not seem safe to bike on many of our busy streets.”
- **Noella M:** “There's nothing near enough to my house (in Metro District) to warrant this, other than some parks that are decently close by. I don't want to walk/bike over 14 miles to work each day, because while I am not in bad physical shape, I am by no means fit enough to do that (and it would take me over an hour just to bike).”
- **Brandon P:** “I do this every day or most days. It's a great work out and helps cut back on the amount of gas we use in my house. Where I live (Metro District), it's a pretty decent walk to the nearest store and that probably prohibits a lot of people from doing so.”
 - **Sydney B:** “Making stores and such closer would be a good way to get people to drive less.”
- **Carla P:** “The weather can be so extreme. It is so cold and when the ice gets here there is no way to walk safely even on really good sidewalks.”
- **Alix H:** “Weather is limiting.”
 - **Noella M:** “I'm glad you brought up weather, Alix, because that's such a big part of the picture in Minnesota! When it seems like it's winter for the majority of the year, there's no way that it makes it easy for me to walk or bike somewhere.”
- **Anna W:** “To get groceries, for instance, it's too far to bike or walk to the cheapest grocery store in town (in D6), especially in the winter.”
- **Kelly J:** “Convenience is the biggest factor.”
- **Mark K:** “I am rural, so this doesn't make much sense to me. Everything I need is miles away.”
 - **Greg N:** “I can relate and live in the suburbs. Everything I need is at least a couple miles away.”
 - **Cindy:** “also live in a rural setting.”
 - **Mark K:** “I would love to consider biking to destinations under 10 miles but I just don't have the time.”
- **Mark P:** “My house is too far away to use any of these forms of transportation.”
- **Mary W:** “Just recently had surgery so that has been preventing me from enjoying a bike ride or walk.”
- **Jessie W:** “The weather and roads where I travel and needing to transport kids limits my willingness to do this more.”
- **Christine:** “Nothing! I don't ride a bike, but I walk to the nearby grocery store, library, restaurants in my area whenever I want to and there's nothing that limits me except for the weather like freezing weather.”
- **Patty B:** “Weather- rain and then the snow. Winter it is harder to get around with ice and snow- and they are where too many crazy drivers that do not look out for walkers or bikers. Too many people have killed by cars. Safety is critical.”
- **Shayla C:** “My neighborhood isn't very safe for me to be walking around in alone, so I often have to wait until I'm with someone to go on a walk. The sidewalks are also very limited near me. I would also love to bike on a bike trail, but I don't have one near me.”

Participants would walk/wheel/bicycle more often if paths were safe from cars, well-lit, and clear. Community bikes and improved pedestrian education would also be welcome improvements.

- **Shayla C:** “I think if there was a bike trail near me I would definitely feel inclined to use it more! I'd love to be able to walk around and walk to places more if it was made to be more walker friendly..”
- **Anna W:** “I wish we had more walkable paths in my city that would help people use these modes as transport and not recreation.”
- **Carla P:** “If the sidewalks were completely plowed and salted so it was walkable.”
- **David C:** “Oh! Sidewalks. We need more of them. I really dislike having to walk in the street in some neighborhoods in Mankato.”
- **Katie G:** “Community bikes available in rural areas would be beneficial”
- **Dani S:** “My bike was stolen, LOL. Plus, my neighborhood doesn't have close things like grocery or convenience stores within reasonable walking distance. Bus is needed.”
- **Sydney B:** “I go way too far to consider walking/biking.”
- **Christine:** “I really cannot think of anything else as my community seems to have enough accommodations for cyclers, people in wheelchair, etc.”
- **Barb C:** “Several things have been implemented (in D1) to support more biking (bike lanes, bike racks on busses, public bike racks and repair stations) but most people do not have fat tire bikes to allow for commuting in the 6 months of the year we have snow on the ground. Walking in the winter is challenging due to snow drifts and lack of shoveled sidewalks.”
- **Tim R:** “Generally I walk/bike as much as I can if the destination is close enough and the weather is good; I am generally happy with the opportunities I have to do this in my community.”
- **Noella M:** “If there were more local places near my house, I'd be willing to walk/bike to those, like a library or grocery store, but I'm just too far away from any businesses in my residential neighborhood.”
- **Jabri W:** “Increased lighting for bike specific drives/pathways.”
- **Kathleen K:** “Bike lanes on every street, education about sharing the road with bikes.”
- **Aaron C:** “One potential option for me is to bike to work, say April through September. Given my relatively short commute, this could be practical. If I had an e-bike this would be a more attractive option and is something I'm considering next year.”
- **Hideki:** “More bicycle paths. The Twin Cities is one of the best areas for bicycles in the nation, but it can always do better. In the suburban areas, it is at times scary to ride a bicycle because you are competing with fast moving motor vehicles. A better isolation between the two modes of transportation would encourage more bicycle use. There is nothing you can do about the weather.”
- **Mark P:** “Put sidewalks on all streets and make sure they are always shoveled.”
 - **Barb C:** “I'm glad you brought up sidewalks and keeping them shoveled. We have issues, all winter with sidewalks that are covered in ice and snow, not because people don't shovel them (although some don't) but because the snow plow pushes the snow back into the sidewalks as the streets are cleared. Walkable communities are not so walkable in the winter.”
- **Patty B:** There could also be Lyft scooters and bike ride programs.

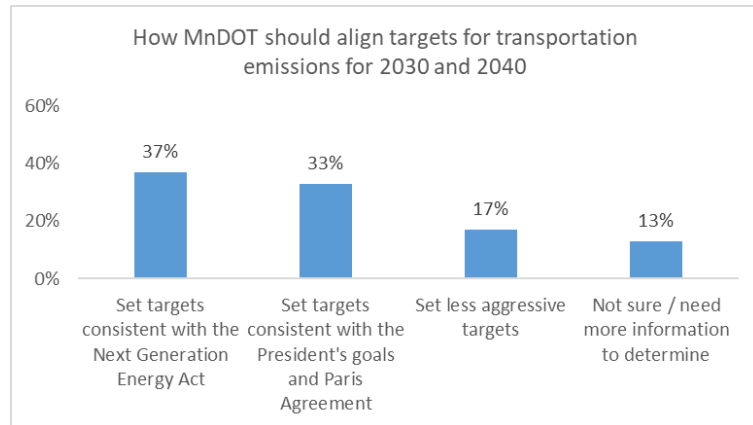
Teleworking, though preferred by some respondents, tends to be up to their employer and not a personal decision.

- **Alix H:** “Job requires my physical presence.”
- **Brice B:** “I work for a manufacturing company. Teleworking is not a practical option. My work has to be in person. However, a number of the office team and engineers are able to work from home at least part time.”
- **Brooke H:** “I'm a nurse so I have to go to work in person with, the exception of some training that can be done online. “
- **Shelly C.** “My job is hands on only.”
- **Mark K:** “I don't have the option anymore. It was a one-time COVID thing.”
- **Christine:** “This doesn't really apply to me. Face to face instruction is vital in preschool.”
- **David C:** “While it doesn't work for me in general, one of the major limitations is access to reliable and affordable Internet.”
- **Kayoua X:** “I do deliveries for work, so this doesn't' apply.”
- **Richard H:** “I am retired, so I do not need to
Brandon P: “I'm stay at home father, so this is my sole mode of working.”
- **Thomas G:** “I'm retired so it doesn't apply.”
- **Sarah G:** “I'm a stay-at-home mom now so this doesn't really come up for me. If I was still working, it'd be in the theater which had some of this going on but not so much.”

Fast, reliable Internet access is a shared suggestion to make teleworking viable for more. Some would also like their companies to approve it more readily.

- **David C:** “While it doesn’t work for me in general, one of the major limitations is access to reliable and affordable Internet.”
- **Nai X:** “Depending if technology I’m using is working, then no problem. If electric is out or cable, which is responsible for my internet, goes out or under maintenance then it makes it hard to work.”
- **Patty B:** “Faster speed internet-when kids were home from school during covid and evening hours -the internet seems to slow down.”
- **Carla P:** “I love telecommute. I would do it everyday for the rest of my life if my boss was okay with it. “
- **Titi T:** “My employer doesn't offer a work from home option. I would love to be able to work from home 2-3x a week.”
- **Lisa K:** “I need to go into the office at least once a week. It's more of a company policy so companies need to decide for themselves.”

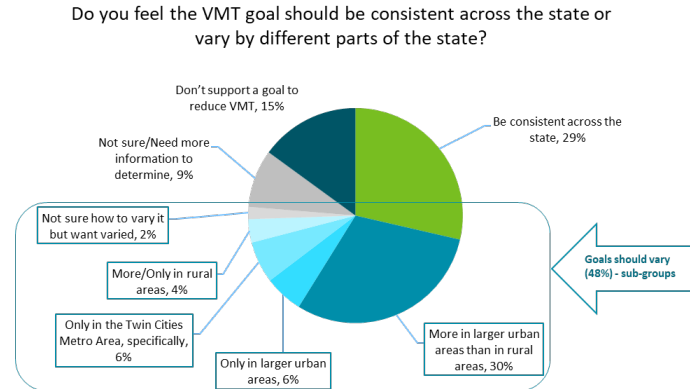
Most respondents do not claim surprise at GHG emission reduction goals. Some did not expect to see quite as much support for the goal, in general.



- **Hideki:** “No, I am not surprised. Many people find it difficult to conceptualize these emission targets in their heads and decide what they really prefer.”
- **Aaron C:** “I think most people realize the need to curb emissions but knowing what the target should be will vary widely, even among experts. There is the inevitable balance of economic needs with environmental concerns. At some point (perhaps very soon) we won't have much choice but to make very onerous changes to address climate change. Much of what we are experiencing is already baked-in.”

- **Anna W:** “This doesn't surprise me at all, seeing that there's generally a level of trust with MNDOT I think, compared to other state agencies. I think it's good that most people think we need to reduce emissions.”
- **Brooke H:** “I think the 2 goals are pretty similar, so it doesn't surprise me that the preferences for them are close.”
- **Jill H:** “No, looks about right for what I've heard bits and pieces of in the news.”
- **Brice B:** “I'm a bit surprised how high the numbers of support are for setting high targets like the President and State are wanting to do.”
- **Greg N:** “Surprised that 70% agree to one of the two initiatives. Thought it would be less.”
- **Eddie H:** “Yes, why are we killing our economy for these pointless goals that will make no difference as countries like India and China are doing far worse than anything we can hope to offset?”

Most respondents think more stringent goals in the Metro area make sense, due to volume and transit options.



- **Christine:** “I agree that it should be more in urban areas because people who live in rural areas have no option but to drive if they have to go somewhere because of the absence of public transportation. There is no bus, light rail, or ride-sharing services available.”
- **Katie G:** “I think it should depend on population density, the number of work commuters, how close the workplaces are to the employees, etc.”
- **Lisa K:** “No, I'm in line with the results. I think we should put a little more focus on urban areas because that's where most vehicles are located.”
- **Kris S:** “More focus on urban areas because cities are where greenhouse gases are highest due to density of people.”

- **Natasha C:** “I feel the goal should be varied. People who live in rural areas have to go to other towns to get their necessities and have far fewer options for public transportation.”
- **Aaron:** “It should be varied and take into account population, commuting options and road use. As I noted, it is far easier for residents of large cities to use alternate transportation options to cars. In rural areas it's often much less practical give a lack of bussing, rail, or other options. Traffic is also much less of a problem in less populated areas.”
- **Steve:** “Varied across the state. Example, I live 45 minutes from the nearest Walmart/Target. I've lived elsewhere in the state where I was 10-15 minutes away.”
- **David C:** “On the one hand, I think the goal of being consistent across the state makes sense based on the want to treat everyone equal, but the idea that we'll need to consider the needs of each region independently makes sense as well. I'm personally please the majority wants varied goals based on region.”
- **Julie R:** “This should be consistent across the state, as it benefits people, animals and plants everywhere.”
- **Hideki:** “This is a little surprising to me as there has always been a substantial divide between the metro area and the outstate in the socio-political-economic values. I expected the Greater MN to be more hesitant to go with the VMT model due to the obvious difference in that miles driven per vehicle per year.”
- **Jourdan L:** “A little bit. I assumed that a larger amount of people would want the goals to be the same across the state. I see the reasoning behind it being more stringent in the cities, but fair is fair I think.”

There are some variations on how people goals could/should be set and what should be considered (line of work, availability of public transit, time in vehicle, etc.).

- **Brooke H:** “I think the goal should be varied but it needs to take into account miles driven by farmers because I assume their farm vehicles and equipment will count towards the mileage thing. I think that if it didn’t, we would lose a lot of agricultural business in the state. Also what about people who drive for their jobs like home health nurses? Would that be charged per mile or would that cost be passed on to their employers?”
- **Hideki:** “The goal can be set using two separate metrics, weighed differently, One could be a pure VMT model, in which the geography does not count. The other may be set to a modified VMT that takes into consideration of the median number of miles driven by various types of vehicles, private and commercial, with the goals adjusted accordingly. The two goals can then be aggregated for the purpose of the overall emission goal setting.”
- **Brice:** “I don't support the goal of government enforcement of reducing vehicle miles traveled, however I don't have a problem encouraging it by offering other alternatives. But I think the largest gains would be in the metro area. Much of Greater MN has less traffic, and less distance to travel. The exception may be for people that live in one town but work in another.”
- **Christine:** “It should be varied depending on the availability of public transportation or ride sharing services in a given area.”
- **David C:** “Yes, but there would need to be some major caveats. I think moving away from Vehicle miles traveled as the primary metric should be considered. because the issue in the metro isn't always vehicle miles but is instead time spent traveling. after all an idling vehicle still produces CO2. By that logic making public transit more accessible reduces carbon but also making the commute easier would ease congestion and lower emissions as well... this is a simplification of the issue to be sure. Cities generally increase in size and so adding more lanes is pretty much a stopgap as eventually population increases will negate any effect to be seen as it relates to traffic congestion, but I digress.”
- **Eddie:** “Taking lanes away from the majority of traffic (cars) and giving them to a mode of transportation that a minority can use, and only for, at most, 5 months out of the year is a stupid waste of resources, causing more traffic, and resulting in more exhaust fumes. ... If we absolutely have to go down the big brother route (and I mean no offense, I just get "my undies in a bunch" as my wife likes to say) and allow the government to try to control us, I would be inclined to lean more towards the "Vehicle time" to get a better grasp on things, yes.”

When goals are vague (and not clear how they would impact individual citizens) it is easy to agree with them and still want convenience.

Transportation policy should try to shift more trips toward public transit, walking, and bicycling	1	2	3	4	5	6	Transportation policy should make it easier for most to drive
	42% leaned toward left statement	58% leaned toward right statement					

NOTE: There were no substantial differences between the Metro and Greater MN or by more detailed urban/rural splits.

- Aaron C:** “I think generally people use the mode of transport that is most convenient for them. If you make something difficult, they aren't likely to want to use that mode. In some sense, making driving easier probably makes the goal of reducing emissions harder to realize. I do find that the two goals are in tension. It's hard to see how we can achieve a meaningful shift in transit behaviors by focusing on both.”
- Hideki:** “When something generally specific is proposed, most people are okay to go with the goals if they appear to be benign. This is why I believe that a substantial percentage of those polled chose the two specific proposed goals.”

People starting thinking about small changes they could make even when alternative transportation modes use is limited.

- **Katie G:** “I would need to be more mindful about choosing places closer to home that I haven't previously visited. I would work harder to coordinate with friends and family to plan shopping with fewer trips.”
- **Aaron C:** “Incentives are preferable for changing behavior, but disincentives may also be necessary. An example of the latter: high taxes or surcharges on things that we want the public to avoid. Cigarettes are taxed in such a way that it's disincentivizing for many to continue to smoke. In a similar way adding tolls to roads or charging more for gas or parking could force people to rethink transportation habits.”
- **Sydney B:** “I'd be willing to combine my trips if the buses were more frequent in the areas I need to go.”
- **Patty B:** “I would purchase an electric vehicle when they come affordable and there is easy access to charging stations.”

DAY 1: Transportation Policy Questions

Results from survey they participated in were shared within the discussion

Fair & Just: Another area explored in the survey was about how to implement transportation policy when it comes to spending, services, and systems. One of the statements in the online survey with the highest agreement was this →

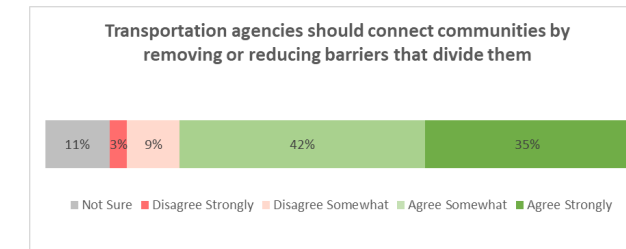
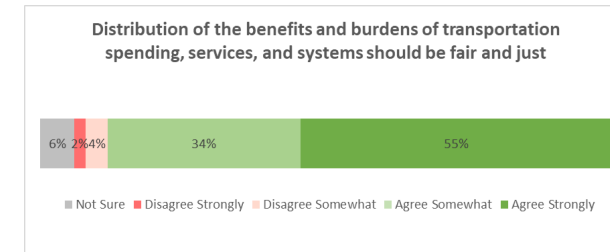
- a. What comes to mind when you think of a “fair and just” distribution of benefits/burdens?

Please complete these sentences by filling in the blanks.

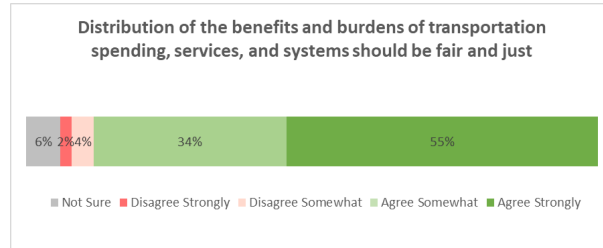
- b. A fair and just transportation system in Minnesota would be more ____ and less ____ than it is today.
- c. To create a fair and just transportation system, transportation agencies like MnDOT need to start ____ and stop ____.

Another area explored in the survey was about how transportation agencies should remove barriers dividing communities. This statement also had fairly strong support →

- d. What came to mind in terms of communities most in need of being more connected?
- e. What came to mind in terms of barriers that need to be reduced or removed?
- f. Can you think of examples of where/how:
 - Physical barriers might be or have been reduced or removed?
 - Other types of barriers might be or have been reduced or removed?



When asked about one's top of mind reactions to a 'fair and just' transportation system, many view this term through the lens of metro versus rural.



- **Anna W:** “Fair and just means that the monetary distribution of this policy isn't necessarily distributed equally, but it means that there is harm mitigation with who is affected by the policy.”
- **Barb C:** “I don't think we can have equal systems across the state because of the lack of population density and rural nature of much of greater Minnesota. There will always be more needs, more services and more expenses in the metro area where the population density is higher.”
- **Christine:** “It means equity, not equality, to me. People have different circumstances and they should be addressed accordingly.”
- **Ty J:** “Everyone should be viewed as equal and if a burden has to be handled, it should be handled by all, not just a select few.”
- **Eddie H:** “If I am being honest, it sounds more like a buzzword than having any practical measuring system.”
- **Hideki:** “A fair and just distribution of benefits/burdens begins with a proper identification of the existing needs. Where are the greatest needs for improvement, and what improvements carry the most benefits per cost/burden.”
- **Jabri W:** “I think fair and just means distribution shouldn't just be prioritized in large metro areas but shared across the state.”
- **Sarah G:** “Making sure all populations, including urban/suburban/rural as well as Black, non-English speaking, income levels, etc. have access to transportation improvements/methods.”

When asked to do the sentence completion exercise, a range of perspectives surfaces.

A fair and just transportation system in Minnesota would be more ____ and less ____ than it is today.

Example quotes:

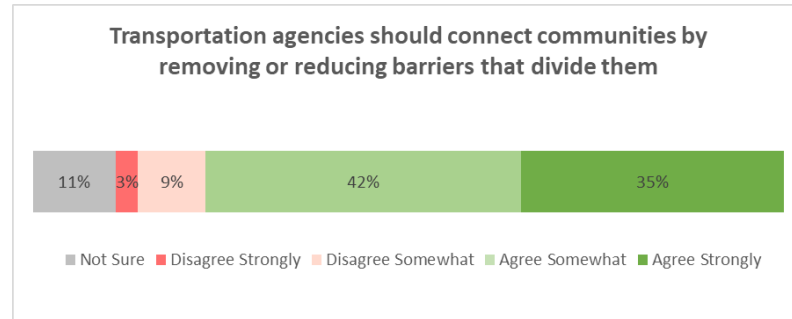
- **More** public transport-centric; **less** car-centric.- **Anna W**
- **More** regulated at the local level; **less** regulated at the state level.- **Brice B**
- **More** accessible everywhere; **less** centered in urban areas.- **Christine**

To create a fair and just transportation system, transportation agencies like MnDOT need to start ____ and stop ____.

Example quotes:

- **Start** engaging greater Minnesota partners; **stop** focusing on metro-centric options.- **Barb C**
- **Start** considering the needs of the communities they are building infrastructure in and through; **stop** ignoring the impact major projects on already established communities.- **David C**
- **Start** incentivizing less miles driven; **stop** unnecessary emissions- **Greg N**

In terms of connecting communities, many respondents favor connecting urban and rural communities, as well as improving transit for lower-income areas.



- **Christine:** “These are communities with limited transportation availability, routes or the absence of it.”
- **Jabri W:** “Rural communities and communities of color that have been pushed farther outside of the cities.”
- **Noella M:** “There are literal giant highways that divide neighborhoods and cities/towns by race and/or class. Gerrymandering at it's worst.”
- **Stephen K:** “I think the barriers are there for a reason and should stay there.”
- **Anna W:** “I think we need more public options that connect communities, especially the suburbs to the cities.”
- **Julie R:** “It would be great to connect urban and farming areas so we may benefit one another more easily in commerce.”
- **Mark K:** “Being more connected in communication and infrastructure.”
- **Mark P:** “Low-income cities need to have more public transportation options because they might not own personal vehicles.”

Broadening access to locations and transit is a common refrain when discussing breaking down barriers.

- **Aaron C:** “Access is a big one. Cost is another. As with anything, having better economic standing provides more access and options. A transportation system has to serve everyone, not just certain niche areas. ... Over time I think the Light Rail system can improve its coverage and service of Minneapolis and St. Paul, but as of now it seems to be a niche transportation option that connects downtowns and the Mall of America with Target Field.”
- **Barb C:** “What comes to mind is barriers to sharing transit options, such as arbitrary borders where service providers can’t serve across arbitrary boundaries.”
- **Christine:** “Absence of public transportation/routes, transportation cost, and long travel time.”
- **Hideki:** “The idea that people's transport needs are governed by the city and county borders must be eliminated. That is no longer the way a large percentage of the people move around.”
- **Julie R:** “Social barriers like stereotypes.”
- **Kris S:** “The lack of transportation options to places outside of an urban setting.”
- **Sarah G:** “Nowhere in the state should be able to decide to make their area less accessible to others. So, I guess the barrier here is lack of political power.”

When thinking of reducing physical barriers, wheelchair accessible sidewalks is a realized improvement. Adding more transit access and pedestrian walkways are ideas for the future.

- **Aaron C:** “If we are to expect people to walk or bike more, we need to change the infrastructure to support that. Living in the eastern suburbs it's simply not feasible for me to consistently bike anywhere with how the roads are set up currently. As a hobby it's fine, but to expect people to walk or bike to work or other commercial places, it's just not set up for that.”
- **Carla P:** “If companies were more open and accommodating to telecommuting.”
- **Christine:** “Provide more public transportation/routes.”
- **Greg N:** “The Silver Creek Cliff tunnel on the North Shore would be an example.”
- **Kathleen K:** “Sidewalks in Moorhead have been made wheelchair accessible.”
- **Noella M:** “Being able to have bridges for pedestrians/bikers over major roads is so important.”
- **Lisa K:** “Creating public transit stops that go into towns that are harder to reach.”
- **Keanu H:** “Adding in more bus routes or making it more accessible to the student population.”
- **Barb C:** “Is there a roadway between a community that has a frequently used train track running through it that regularly delays people trying to travel to work or school between those communities? Is there a roadway with treacherous curves or bridges that make it difficult to travel between communities in slippery winter conditions?”

Respondents have ideas on how to further remove barriers for people within the transportation system.

- **Carla P:** “Not understanding how public transportation works. Making the process easier.”
- **Kathleen K:** “There have been bike lanes added to many roads in our city.”
- **Mark P:** “Make transportation free for lower income.”
- **Noella M:** “Gerrymandering sucks, and I don’t know what MnDOT can do about that, but roads keep being used as justification by politicians to segregate communities.”
- **Vijay S:** “Encourage more people to use metro transit by running promotions.”
- **Titi T:** “Working and connecting with one another through human interaction, not isolation.”
- **Shayla C:** “Updated transportation systems to make riding more appealing could be a good idea.”

DAY 1: Safety & Wrap-Up Questions

Results from survey they participated in were shared within the discussion

Safety: Lastly, this statement shows that there are mixed reviews on if/how transportation agencies should change the design of the roads in order to slow traffic and improve safety →

a. What is your perspective on this and why?

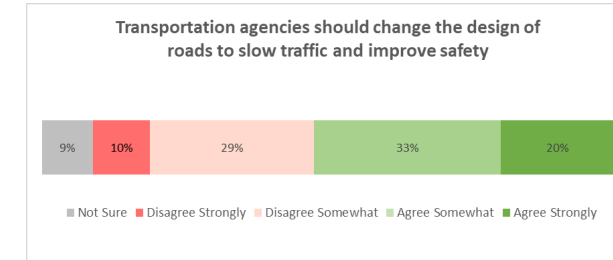
Personal Experience: About 14% of the survey respondents indicated they had NOT taken a trip because they lacked a safe or affordable transportation option. In this case, there was a difference by location type:

- 10% in rural MN or exurban/rural metro environment
- 14% in a suburban environment
- 20% in an urban environment

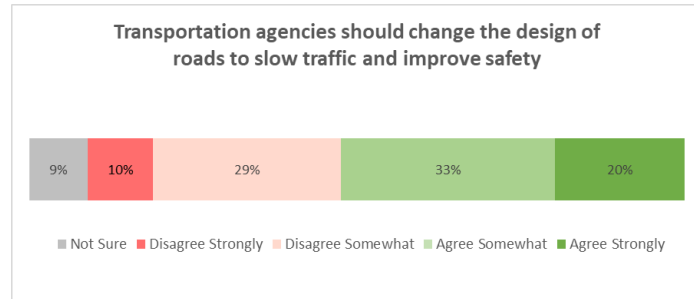
b. If you have ever experienced this and/or have a story to share, please list that here

Day-1 Wrap-up:

- **Please spend time thinking about these and look for images and/or examples** in your environment or anywhere you travel within the next day or so that might shed additional light on a particular aspect.
- **There will be fewer new questions in the next set (Day-2). There we will spend time reflecting on these issues in more detail as we wrap up the discussion.**

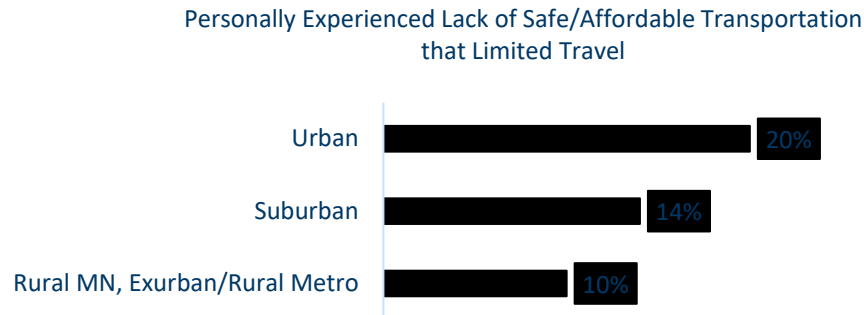


Most comments voice support for increasing safety even if it means slowing traffic. A few respondents like the goal but not if it means a lot of new construction.



- **Anna W:** “I think speed bumps or outsets in corners are a good way to slow traffic in areas that are supposed to be really pedestrian friendly.”
- **Beniyam T:** “To make sure road signs are easy to read or have been replaced with new signs so it can be used for safety.”
- **Katie G:** “It would help if the lines that are painted would stand out in snow, ice, and rain a bit better. Solar powered lights along the roads might help, too.”
- **Lisa K:** “I would agree to change the design of roads, if it means creating more pedestrian walkways, stop signs, and other methods of slowing down cars.”
- **Carla P:** “I don't think it's necessary. If anything, that means more construction.”
- **Hideki:** “The focus should be on safety, and then the speed reduction. Yes, there have been consistent data showing a correlation between the reduced speed and improved safety, but we must fix many ancient road designs that are up to the par in this age that are not particularly safe regardless of the speed.”

Few respondents have lacked affordable/safe transportation, but those who have cite inconvenience and feeling unsafe on public transit as contributing factors.



- **Hideki:** “My wife and I once picked up a family with a baby who were waiting for a bus at a stop in a subzero (-15 F) temperature and drove them to their apartment. They had to stand there not knowing when exactly the bus would arrive, and they could not afford to miss this one bus because the next one could be a half-hour out. They were in an unsafe transportation environment. If the bus stop had had an approach indicator (showing where the next bus is at any given moment), they could have taken a warm shelter in a nearby shop or bank.”

- **Noella M:** “Yes, because sometimes my spouse is busy so I can't go anywhere because there's nowhere, I can reach on foot. I can't walk to the grocery store for eggs because it's too far away, and if my spouse has the car, I don't have options. In Rochester, there were some stores I could easily walk or bus to, but in my new Mounds View neighborhood there's no stores.”
- **Shayla C:** “I have actually decided not to go somewhere because of feeling unsafe traveling at night on the bus.”
- **Patty B:** “Have hesitated to use public transportation when I hear a mugging or violence on light rail or in downtown Minneapolis do not feel safe”

Focus of Day-2 Discussion:
*reflecting on day-1 topics, drilling down, and
discussing actions/impacts*

DAY 2: Reflection on GHG Questions

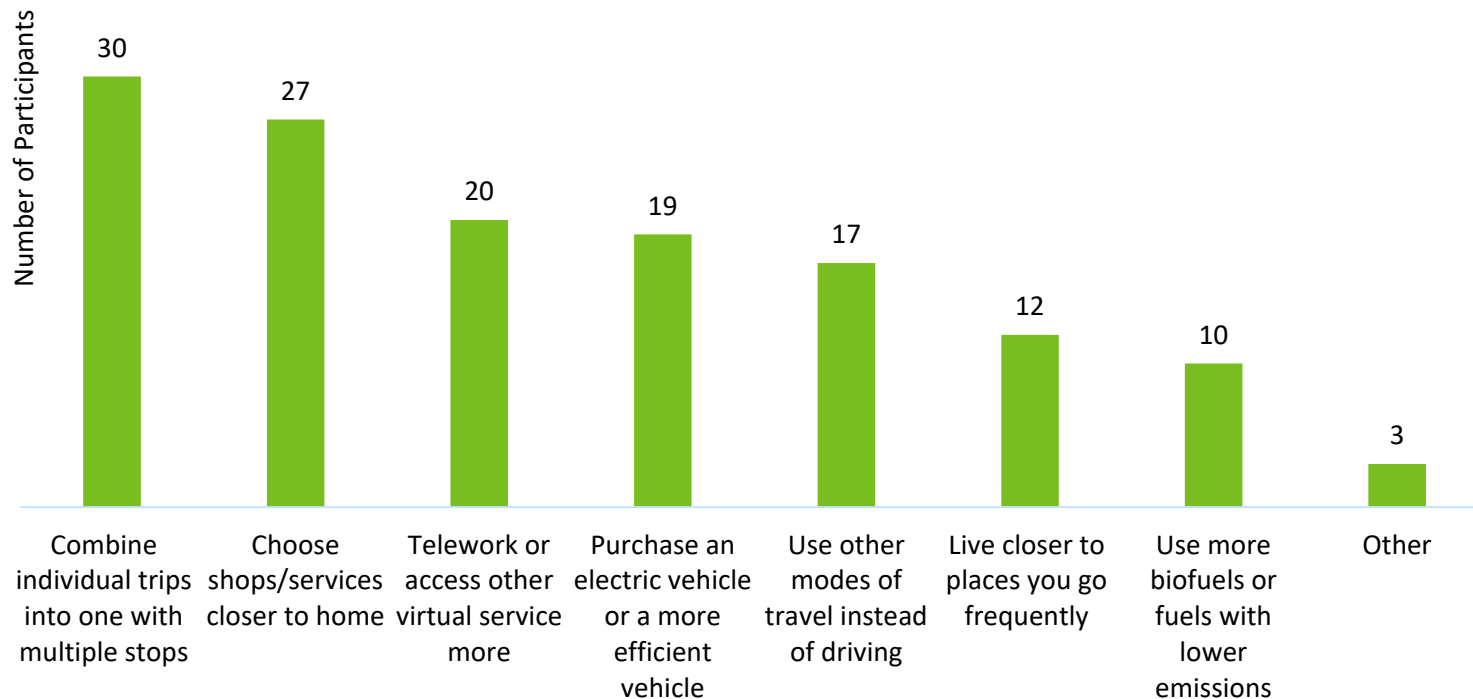
- a. What additional thoughts or considerations surfaced? If you have a photo or video to share, please do so and explain what it is when posting it.
- b. Minnesota statute requires MnDOT to reduce greenhouse gas emissions from the state's transportation sector. To meet greenhouse gas reduction goals, more Minnesotans will need to do more of the things listed below.
- Which options would/could you realistically do now or in near future (even if you'd prefer to make no changes)? Select all that apply.
 - For those you selected above, would anything need to change or happen in order for those behaviors to be easier for you to do? Be as specific as you can.
- c. Some of the following may occur if MnDOT and others support/implement actions to reduce greenhouse gas emissions.
- Which of these impacts would you consider to be the most acceptable (or, if you don't support any, the least objectionable)? Please check at least 3.
- c. Where do you feel the responsibility lies for reducing greenhouse gas emissions in the transportation sector within Minnesota?
- Please list three percentages that add up to 100%. Your top-of-mind sense is fine.
 - MN businesses
 - Individuals/households
 - MnDOT/other agencies involved with the transportation system
- d. Please complete this sentence: I would be **willing/able to reduce my vehicle miles more if** ___ were to happen/become available.

After day one, many respondents noted how the board got them thinking about their own carbon footprints as well as the urban versus rural divide.

- **Anna W:** “I think it really forced me to think about the rural/urban disconnect in Minnesota and how we can create more transport options besides cars to get from the suburbs to the Twin Cities.”
- **Beniyam T:** “How to take better steps to creating less gas emissions is something I have been thinking about and how to reduce my impact on it.”
- **Christine:** “I feel that there are not enough bike lanes in Minnesota.”
- **David C:** “I really appreciated the thoughts expressed regarding the conceptual and difficult to grasp nature of this issue.”
- **Noella M:** “I think that better public transportation is vital for our state, especially in the metro. While fixing roads for drivers is good, not everyone can even afford a car, so public transit is super important.”
- **Greg N:** “Another way to state the overall goal: By reducing physical barriers, enables people who need them have the ability to take advantage of a full range of community services. Leading to a better quality of life by members of the community.”
- **Jabri W:** “What most surfaced for me was that vehicle and road/transportation policy really has a different impact depending on where you live.”
- **Katie G:** “Why doesn't everyone have the mindset of making the planet a cleaner and safer place?”
- **Mark K:** “I think the biggest item is lowering greenhouse gas emissions for the sake of the planet. We all need to contribute whether we are city or rural.”
- **Ty J:** “I thought a lot more about safety features in my area, a few people brought up more roundabouts as safety options and i tend to like that idea.”

Most of the participants feel they could reduce their personal GHG emissions by combining individual trips and choosing closer shops/services.

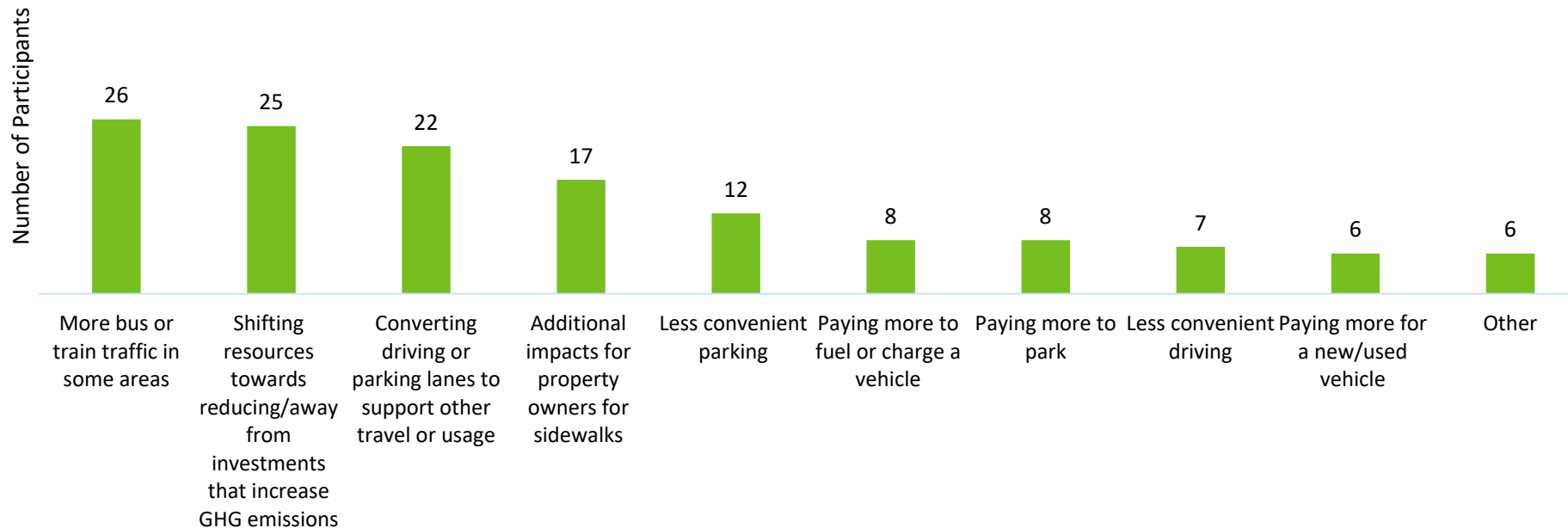
Realistic actions to take now/in the future
(n=42)



- **Anna W:** “We need more EV infrastructure if I'm going to purchase an EV.”
- **Christine:** “Sharing ride with others and combining trips are things that I can realistically do now without changing anything. Purchasing an electric vehicle is something that I have to research about first, (what brand, its pros and cons, etc.)”
- **Katie G:** “I would need to be more mindful about choosing places closer to home that I haven't previously visited. I would work harder to coordinate with friends and family to plan shopping with fewer trips.”
- **Lisa K:** “Making it more of a habit to use other modes of transport besides driving.”
- **Ty J:** “Just getting into the habit of being more efficient with travel is my barrier.”
- **Hideki:** “Using public transit would mean that there is a viable route available that serves my transport needs.”

The most acceptable impacts resulting from GHG emissions reducing actions would be increased transit traffic, shifting resources toward reduction and converting lanes to support other modes.

Which of these impacts would you consider to be the most acceptable?
(n=42)



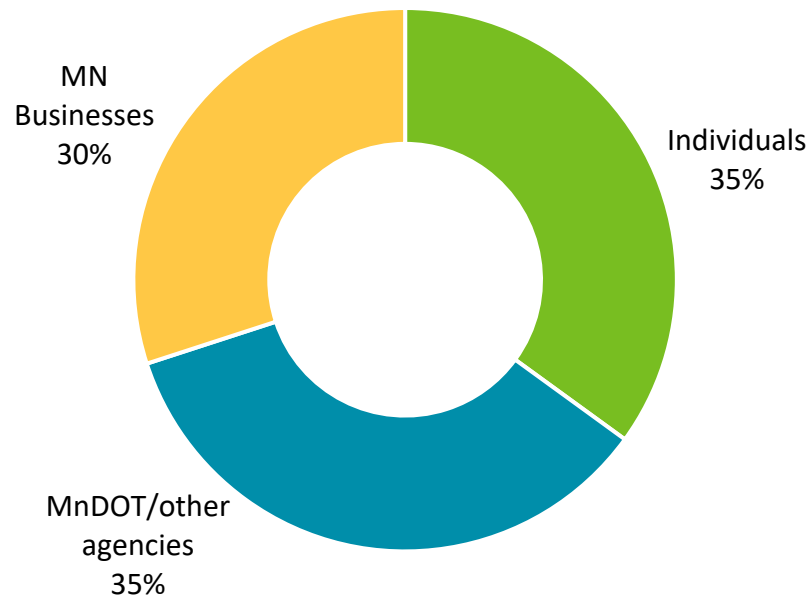
- **Brandon P:** “I know that I myself decide what I’m going to do or where I’m going to go based on how easy it is to find parking and if I have to pay a lot for it.”
- **Katie G:** “Emissions is a costly problem so it makes sense that funds will be needed to fix it. Wider sidewalks seems reasonable for increased usage. Having adequate sidewalks in a lot of places will encourage usage.”
- **Christine:** “Providing access to public transportation in some areas would benefit the community. I also support the idea to provide more bike lanes, sidewalks.”
- **Mark P:** “I think they should make it as easy as possible to choose other forms of transportation that are better for the environment.”

Cost is a common restriction regarding changing into more sustainable habits, especially for electric vehicles. Some respondents are willing to be more thoughtful in their transportation behaviors.

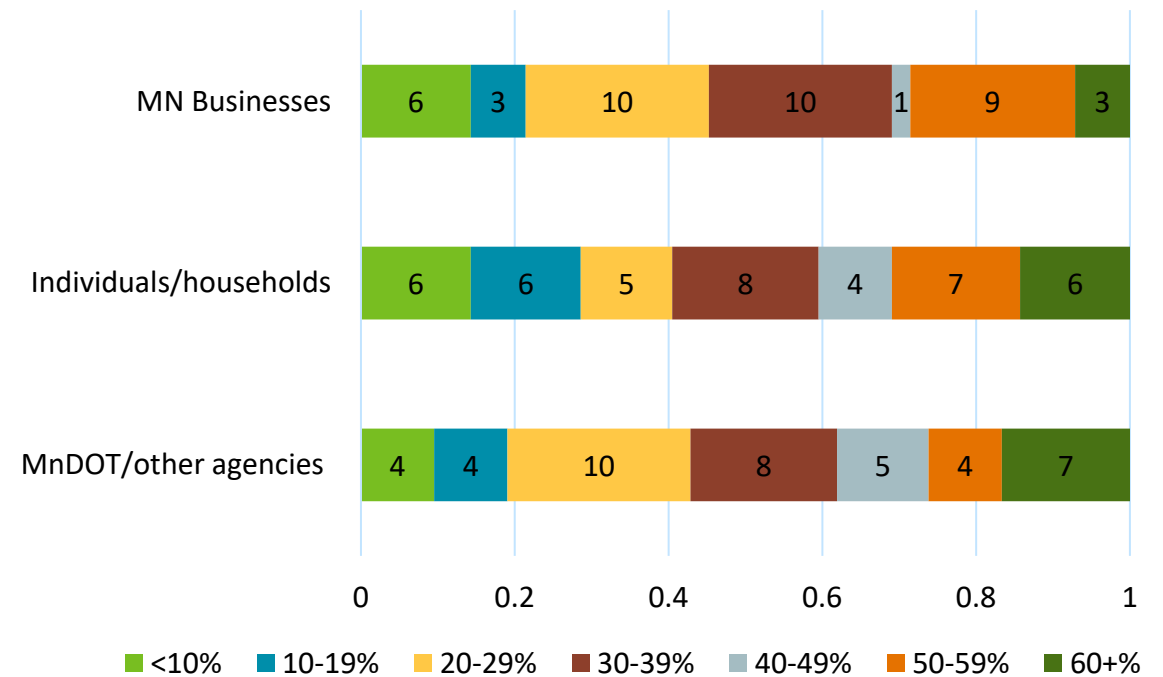
- **Dave B:** “Better planning by myself and availability to afford a change in life circumstances.”
- **Mark K:** “I would love an electric car and am considering it. I need the price to go down and I need to make sure my electric used is clean.”
- **Julie R:** “I already do most of the above but would need a higher income to replace my vehicle.”
- **Mary W:** “I would have to sell my house and move to make these happen.”

There is an even spread of responsibility for GHG emission reduction. About one-quarter feel that MnDOT+ holds most of the responsibility (50% or more of it).

Average Party Responsibility for Reducing GHG Emissions
(n=42)



Responsibility Mix for Reducing GHG Emissions
(n=42)



Most respondents think that government agencies, MN businesses, and individuals all share some portion of the responsibility in GHG reduction.

- **Aaron C:** “MnDOT cannot address everything on its own. Reducing emissions is largely in the hands of the consumer and their behaviors.”
- **Beniyam T:** “I think local businesses and agencies have control over this issue and have a big impact on it.”
- **Brandon P:** “I personally feel that we all need to pitch in equally to make a change.”
- **Greg N:** “Individuals and businesses contribute more to the problem and also have the most to lose.”
- **Mark P:** “The government and state should take the lead and businesses and individuals will follow.”
- **Brice B:** “I think the government needs to rely on the private sector to make the adjustments as they see fit. The government should support the public, not dictate to it.”
- **Dani S:** “It’s MnDOT that can provide us with alternatives, and also the individuals responsibility to take their part to reduce emissions.”
- **David C:** “Businesses produce more GHG than an individual could ever dream of producing. They need to get it together. MnDOT has actually done a lot at least in Minneapolis. ”

When asked for additional thoughts, some respondents expounded on their ideas for GHG emission reduction.

- **Anna W:** “I think we strongly need to consider building more EV infrastructure in order to reduce emissions and encourage people to buy EVs.”
- **Greg N:** “Green technology and renewable energy can lead to investment opportunities and economic growth.”
- **Kris S:** “Have your contractors who do the repair work for roads either use more emission friendly equipment or actually meet your deadlines instead of making pointless pollution and wasting dollars that you could be using towards meeting other goals.”
- **Shayla C:** “I really wish that businesses would be held to higher standards when it comes to their impacts on their environment and communities.”
- **Hideki:** “Any alternative that can reduce the greenhouse gas emissions must be viable to the individual who is willing to help out. One size hat does not fit all, and this means that, the broader the options are, the more likely that at least one option becomes viable for a particular individual/household/organization.”

When asked to do the sentence completion exercise, a range of perspectives surfaces.

I would be *willing/able* to reduce my vehicle miles more if ___ were to happen/become available.

Example inserts:

- **Aaron C:** “Better mass transit options”
- **Brandon P:** “It was easier to get what I needed closer by me”
- **David C:** “A massive switch to a 4-day work week”

Example quotes:

- **Katie G:** “Stay at home incentives”
- **Mark K:** “Electric cars were a bit cheaper”
- **Mark P:** “Cost of ownership of vehicles rises”

DAY 2: Reflection on Policy Questions

The earlier discussion about what a **fair and just transportation policy** would look like showed that there are a variety of ways to think about and define this. We would like to present a couple of specific definitions and get your reactions to them.

a. What is your reaction to this statement about fairness in transportation?

“Fairness in Transportation means transportation systems need to be impartial and free from bias. Fairness in transportation requires a proportionate distribution of transportation benefits and burdens.” Please list whatever comes to mind and the general feeling you have about this statement.

b. What is your reaction to this statement about justice in transportation?

“Justice in transportation means taking proactive measures to ensure transportation benefits are accessible to everyone, especially historically disadvantaged and excluded communities.” Please list whatever comes to mind and the general feeling you have about this statement.

Reactions to MnDOT's definition of 'fairness' tend to be positive, though some are skeptical of enacting it in the real world.

- **Aaron C:** "This is a laudable goal, but so difficult to implement. As with anything, access depends on economic status. It's so much easier to meet transportation needs if you have money."
- **Beniyam T:** "Having more nearby locations for transportation, prices, and time."
- **Christine:** "It is more about equity to me. People in given areas/locations have different circumstances/needs/challenges and these should be addressed accordingly."
- **Steve:** "The burdens need to be related to regional differences and needs for these individuals to access necessities and health and wellness."
- **Dave B:** "It's the utopian ideal but maybe impractical."
- **Lisa K:** "I think it makes sense but may or may not be easy to implement. We have to give look at each community and think about their access to transportation."
- **Sarah G:** "I think the idea is great, although frankly it should be biased towards communities and people who have been heretofore underserved to bring us to a more equal place. Also, this sort of mission statement is famously the sort of thing that goes on websites and is not often used as a guiding principal when it comes to action and difficult decisions."

Similar to fairness, most people are supportive of MnDOT's definition of justice, though there remains cynicism of this concept in action.

- **Barb C:** “I like the use of proactive as well as the reference to historically disadvantaged and excluded communities, which is a broad term that can encompass many who have not had access.”
- **Cindy W:** “I really do not see any justice in transportation unless you're in an urban setting where the buses and light rail are.”
- **Dani S:** “I think it's a great concept, in theory.”
- **Vijay S:** “All benefits should be available to everyone, and special mention should be given to under served communities.”
- **Mary W:** “Awesome statement. Needs to be handicapped accessible.”
- **Sarah G:** “Again, great thought and necessary but you have to walk the walk as well.”
- **Steve:** “I think of indigenous tribes and their locations in the state. Most have to travel distances for necessities others have direct access to within bicycling distance to their homes. I also think of inner-city individuals and their access to "big box" stores. They also have to travel distances that many others do not.”

Additional thoughts regarding fairness and justice both cover those who support and those who dislike the notions inherent in equity.

- **Aaron C:** “Having a more robust mass transit system, I think, will go a long way to helping correct issues in these areas. The Light Rail needs to be built out much more than it is now. Bussing is a good way to augment rail. As it is today, it's not an option that I strongly consider given lack of service in many suburbs.”
- **Steve:** “Again, transportation needs need to be thought of within regional and community differences rather than a blanket statement covering all of MN.”
- **David R:** “These are unattainable goals.”
- **Eddie H:** “Everyone pays their fair share to use the roads, leave all offensive references to class, race, gender, and sexual orientation out of it.”
- **Hideki:** “We should be aware that the society is divided into the haves and have-nots, and it has been this way for many, many years. We must first acknowledge that such divisions are very strongly entrenched.”
- **Shayla C:** “Make public transportation free. That is something everyone should agree is fair and just.”

DAY 2: Reflection on Safety Questions

Safe transportation is a shared goal, but not everyone may agree on how it should happen.

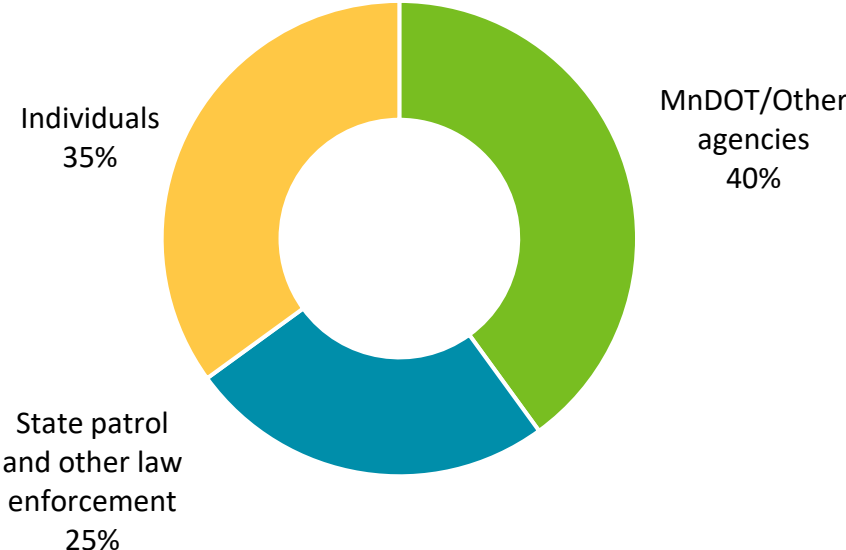
a. Where do you feel the responsibility lies for increased safety in transportation in Minnesota? Please list three percentages that add up to 100%. Your top-of-mind sense is fine. Why do you feel this way and assign those percentages above?

- MnDOT/other agencies involved with the infrastructure/system
- State patrol and local law enforcement
- Individuals

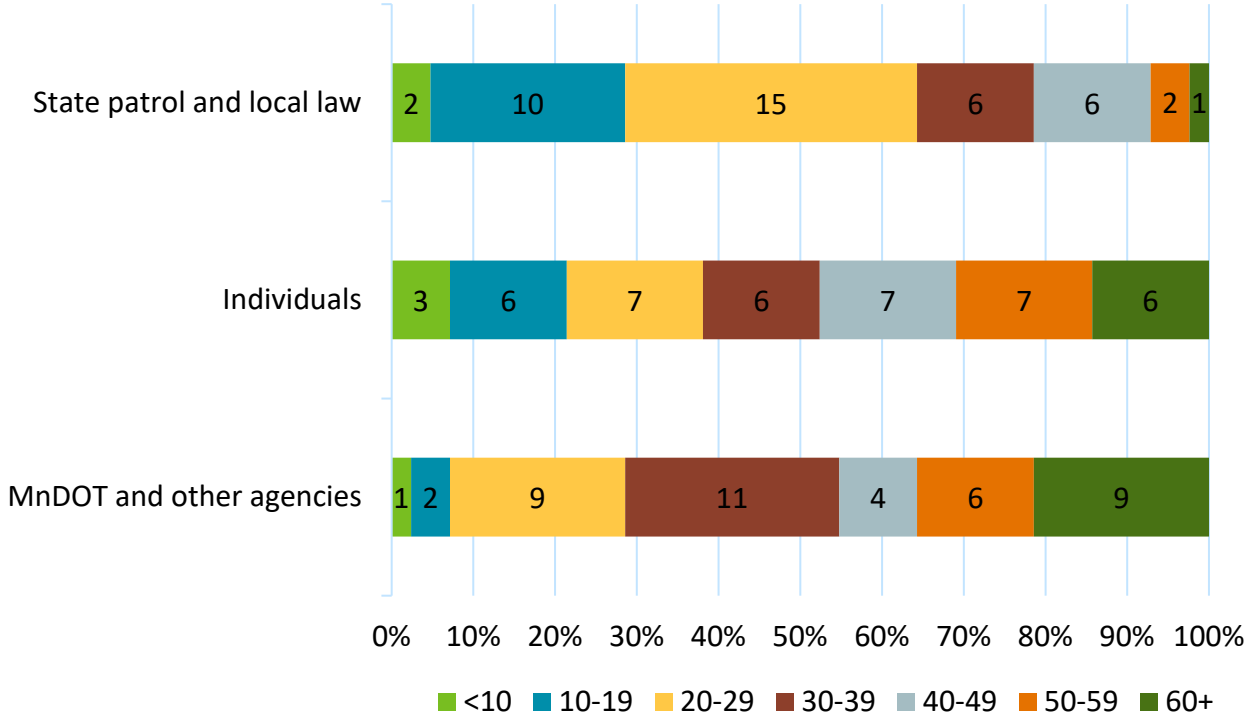
Why do you feel this way and assign those percentages above?

On average, these participants feel there is a fairly equal shared mix of responsibility for transportation safety between MnDOT, individuals and law enforcement. About one-third feel that MnDOT+ holds most of the responsibility (50% or more of it).

Average Party Responsibility for Transportation Safety
(n=42)



Responsibility Mix for Transportation Safety
(n=42)



Speaking on safety, many feel MnDOT's responsibility lies in creating effective and safe infrastructure, but individuals also need to do their part, along with law enforcement, to make it work.

- **Aaron C:** "If there are dangerous speed limits, traffic flows, etc. it is up to MnDOT and law enforcement to help correct those conditions. Enforcement of bad driving habits can be selective by locality."
- **Anna W:** "There have been studies that have shown that safety is largely based on the infrastructure that exists, and not as much on individual behavior as people really think."
- **Brice B:** "Safety is typically what we rely on law enforcement for. They have the heavy burden of keeping our communities safe."
- **Jessie W:** "All about equal responsibility to ensure safety on the roads."
- **Mark P:** "MnDOT and state government can create safe conditions with speed limits, no potholes, and keeping ice and snow off roads. All individuals have a responsibility to be safe and respectful on the roads."
- **Christine:** "When it comes to safe transportation, I think it is MnDOT and other infrastructure agencies who are most responsible."
- **Dani S:** "I feel the majority of the responsibility relies on individuals themselves. MnDOT and police can only do so much. It's up to us to keep ourselves safe."
- **Greg N:** "Primarily drivers have the greatest impact on safety and need to utilize all available tools; their knowledge of safe driving practices and new vehicle technologies."
- **Jabri W:** "Infrastructure can slow us down and individuals should pay more attention on the road. I don't want state patrol to interfere because of the bias included in traffic stops."
- **Mark K:** "The infrastructure needs to be there but then it is mostly up to the individual. The last resort should be law enforcement."

Some respondents had more ideas regarding safety in the transportation system.

- **Greg N:** “Many factors influencing safety; road infrastructure and vehicle design, along with human behavior.”
- **Hideki:** “I am assuming that for the next 20 to 30 years the weight may shift more towards the government agencies as our technological capabilities improve and more options become available.”
- **Jabri W:** “Car companies have a large impact on how they market cars to us as being like sports cars and the desire to drive faster.”
- **Mark K:** “This, once again, should be individual based.”
- **Shayla C:** “You could promote more safety by putting up infographics inside of transportation vehicles or stations, along with video monitors and someone to track those monitors in order to prevent unfortunate happenings.”

DAY 2: Summary Thoughts Questions

Now, please complete these two summary sentences (with the first blank focusing on “what” and the second on “why.”)

a. One key thing I’d like MnDOT to be aware of or remember when thinking about transportation policy, plans, and services is _____ because _____.

b. My biggest hope is that MnDOT will consider _____ more so or more often than in the past, and this will lead to _____.

c. As you have been thinking more about transportation issues, to what degree do transportation policy, plans and services impact quality your quality of life now?

- In what direction does it impact you most often?
- Why do you say that? Please share a story that illustrates this.

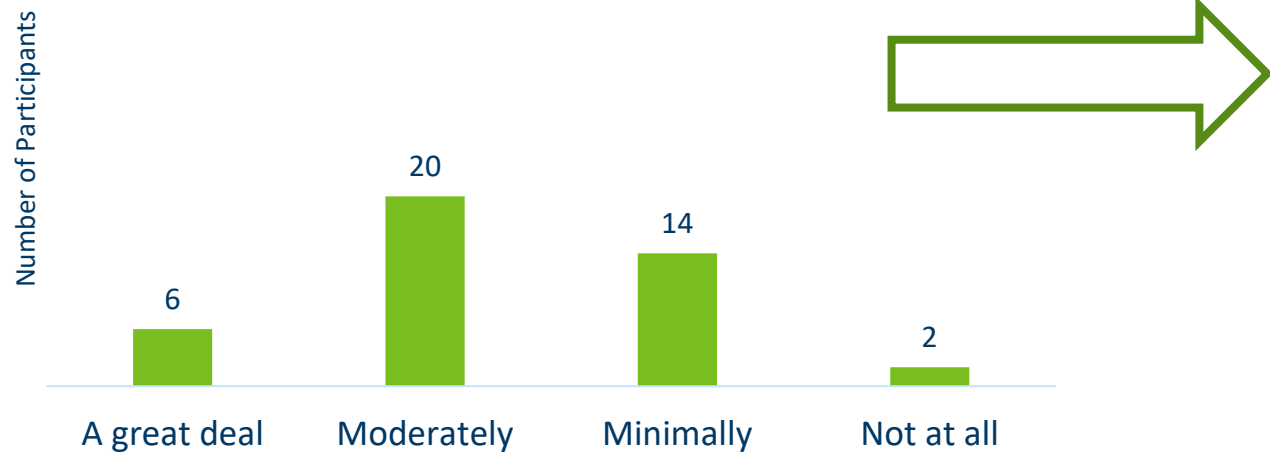
d. Based upon the input shared here, has your perspective on any of the issues discussed changed or been expanded? If so, please share where/how below.

Response not share with other participants:

e. How did participation on this board, as a format to gather community input, compare to your expectations? Why do you feel that way?

Nearly half of respondents feel transportation policy impacts them moderately; the majority feel this effect is a mix of positive and negative, regardless of the degree of impact.

To what degree do transportation policy, plans, and services impact your quality of life now?
(n=42)



In what direction does it impact you most often?
(n=42)



Most respondents feel transportation issues affect them both negatively and positively: many view the headaches of construction worth improved, safer infrastructure.

- **Dave B:** Positive impact: “MnDOT is a commendable operation and that allows drivers to function in a highly effective manner. Thanks!”
- **Aaron C:** Negative impact: “Commutes are big part of peoples' lives. Usually, people notice when they are inconvenienced, so the reaction is almost always negative.”
- **Anna W:** Negative impact: “I really dislike the fact that I have to drive everywhere because of climate impact, but the policy right now is pushing in favor of making it easier to drive.”
- **Hideki:** Mixed impact: “Minnesota, and especially the Twin Cities, does more than a fair job in providing adequate and efficient transportation.”
- **Katie G:** Mixed impact: “It's one of those necessary annoyances to keep people going in their community. I'd rather have it and not need it than need it and not have it.”
- **Mark P:** Mixed impact: “Construction on roads can create slow travel, but these projects will ultimately make roads safer.”
- **Ty J:** Mixed impact: “Everything is trending towards the good, but it's tough just getting to that point, change is never easy.”

After participating in the board, many respondents noted an increased knowledge of the relevant issues. Some also cited the changes they plan on implementing in their daily lives.

- **Aaron C:** “It's made me think about the problem in a more holistic sense. It's a very difficult balance to provide fair/just transportation options across various communities and still meet goals of lowering emissions and improving consumer behaviors.”
- **Carla P:** “This has given me the chance to think more in depth of these issues. My mind always goes to public busses and trains, but this subject is more than just those.”
- **Kris S:** “It has been changed drastically for the worse.”
- **Noella M:** “It is interesting to see people's different perspectives and how they think that problems can be solved. I think that there is still certainly bias against marginalized groups and those who do not have the ability to live near work/telework or afford electric vehicles.”
- **Steve:** “I recently moved from suburban MN to rural for work. I put on many more miles for my basic needs than I did previously. It costs way more to live here transportation speaking (gas, oil changes, travel to get basic necessities, travel for recreation, etc). For example, my kids like to play sports and join teams. I used to drive 15-30 minutes to their events. Now practices are 30-minute drives and games are 30-minutes to 2-hour drives. I've become significantly aware of the differences between metro MN and outstate MN. Both have great positives, but travel and time traveling in outstate MN are significantly higher than in metro MN.
- **Anna W:** “I really dislike the fact that I have to drive everywhere because of climate impact, but the policy right now is pushing in favor of making it easier to drive.”
- **Barb C:** “It was a reminder that many options that sound good on paper do not work for many, regardless of where they live. Public transit is not usually available in rural areas and doesn't work for many who live there. But it also doesn't work for those who live in metro areas. Telework may reduce driving for some but is not an option for many. Light rail is available for some, but many choose not to use it for safety or convenience reason. Reducing miles driven and/or emissions will take a combination of approaches.”
- **Christine:** “Yes! Reading the other participants’ responses have broadened my understanding/perspective about transportation and other issues. I can relate to others’ experiences and I also learned from others.”
- **Greg N:** “Became more aware of the challenges of people that live in urban areas where most people do not own cars.”
- **Kayoua X:** “Yes, I want to use more public transportation.”
- **Richard H:** “Transportation is a multi-faceted system. It is different for urban, suburban and rural situations and needs.”
- **Katie:** “Not everyone who wants to help has the financial means to do so.”
- **Sarah G:** “The tax on the planet, the only one we have, is too high and damaging. So we are late to the party in actually taking action around the dominance of car culture. It affects me every day in ways that range from the climate and what sort of world we're planning on trying to live in to how often the 17 goes by my house on a Sunday and where I can or cannot go based on that. I'm given some hope by the questions and proposals this survey is putting forth. One responder mentioned taxes and that did make me think about how the paying for what I envision to be a necessary but large expense might get paid for. The money is out there--we just need it directed towards things that help.”
- **David C:** “I wouldn't say changed but certainly expanded. I'm glad you are trying to improve the situation but again it kind of doesn't feel like I have a lot of skin in the game at the moment since I don't really have the ability to implement many of the proposed changes and don't use public transport.”
- **Eddie:** “Taking lanes away from the majority of traffic (cars) and giving them to a mode of transportation that a minority can use, and only for, at most, 5 months out of the year is a stupid waste of resources, causing more traffic, and resulting in more exhaust fumes.”

All respondents rated their board experience as about or better than expected. Many enjoyed the interactive aspect of the discussion.

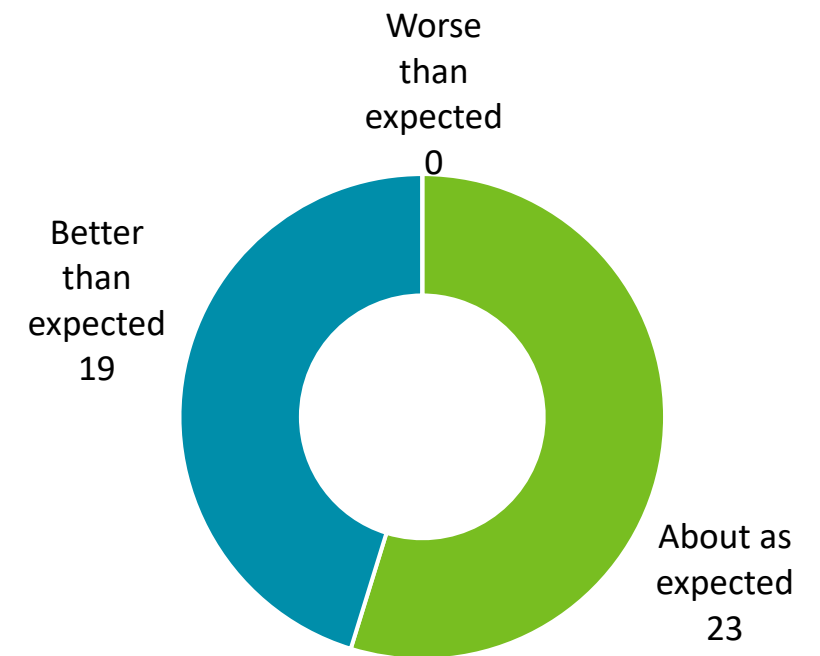
Better than expected:

- **Katie G:** “It felt like my thoughts were actually considered. I don't know a lot about infrastructure or the like, but as a person who just wants to do something to help it's reassuring that there are people in positions that are willing to help, too.”
- **Aaron C:** “The format of the survey was very engaging and fostered a lot of thought. I enjoyed reading others' responses and seeing how they answered given the diversity of backgrounds and experiences.”
- **Anna W:** “I love transportation policy, so it was really interesting to be able to see what other people outside of my usual circle have to say about it.”
- **Hideki:** “The questions and discussion issues are quite thought-provoking and required me to give more serious and specific thoughts than some other like surveys that I have participated in the past.”

About as expected:

- **Barb C:** “There was a diverse group of participants, and all had a different perspective, which I expected and appreciated. I think in an in-person focus group, it's easy to elicit discussion, but is difficult to do in an online forum.”
- **David C:** “It's a good system to gather responses so good work there... but responding to other posts is a bit cumbersome.”

Discussion Platform Experience Rating (n=42 full completes)



Appendix:

Detailed characteristics
Back-up charts from experiment

Phase 1 Demographics by Total and Region

	Total (n=665)	Region			Total (n=665)	Region	
		Metro (n=375)	Greater MN (n=290)			Metro (n=375)	Greater MN (n=290)
Gender:				Education:			
Female	55%	54%	56%	High school or less	15%	11%	20%
Male	45%	46%	43%	Tech/vocational school	7%	5%	9%
Gender diverse/etc.	<1%	-	1%	Some college	22%	22%	23%
Age:				College degree	37%	41%	33%
18-34	29%	31%	27%	Post grad work or degree	19%	21%	16%
35-54	35%	37%	33%	NET College Degree	56%	62%	49%
55+	36%	33%	40%	Race: [multiple response]			
Income:				American Indian or Alaska Native	2%	2%	2%
Less than \$35K	27%	23%	31%	Asian	4%	7%	1%
\$35k < \$50k	15%	14%	17%	Black or African American	5%	8%	2%
\$50k < \$75k	19%	18%	20%	Hispanic	6%	6%	5%
\$75k < \$100k	13%	13%	13%	White	87%	81%	94%
\$100K+	26%	31%	19%	White only / non-Hispanic*	81%	74%	89%

*NOTE: Race is asked as a multiple response category with a Hispanic overlay. The results shown here are the percentage who classify themselves as any of these races (as the only or as one of multiple races). For weighting purposes, the race categories must be mutually exclusive. Each person is classified in only one way. Hispanic (any) is the first category, followed by each of the other races. The last category is those who are white only and not Hispanic. That percentage is shown in the bottom row of the table for reference. This is standard protocol and the same process used for the Omnibus study.

Phase 1 Race Sub-groups

4% Asian

Asian Subgroup	%
Chinese	33%
Filipino	7%
Hmong	27%
Indian (Indians, Pakistanis, Bangladeshis, etc.)	8%
Japanese	25%
Korean	5%
Vietnamese	9%
Other	7%

- Cambodian

6% Hispanic

Hispanic Subgroup	%
Cuban	1%
Mexican, Mexican American, Chicano	56%
Puerto Rican	12%
Other	21%

- Argentinian
- El Salvador
- Colombia
- Panama
- Bolivia

2% Native

Indigenous Subgroup	%
Anishinaabe/Ojibwe	32%
Dakota	11%
Other	59%

- Iroquois
- Lakota
- Siberian Yupik
- Cherokee

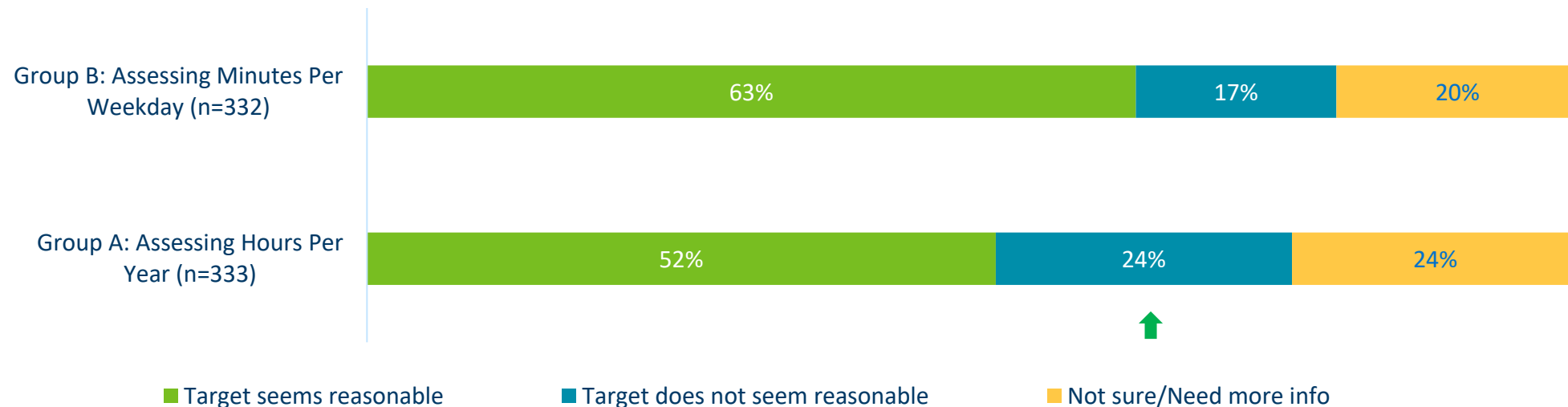
Additional Results from Delay Metric Experiment:

- ✓ Preferences from first exposure
- ✓ Preferences from 2nd exposure

Over half find the delay goal reasonable, and it's more palatable when presented in minutes/weekday

- When looking at the first exposure:
 - The percentages for “reasonable” are not significantly different, because the respondents could also identify as being unsure. These two latter categories (unsure and unreasonable) combine to round out all respondents.
 - This is a realistic top of mind reaction, if each metric were the only one shown.

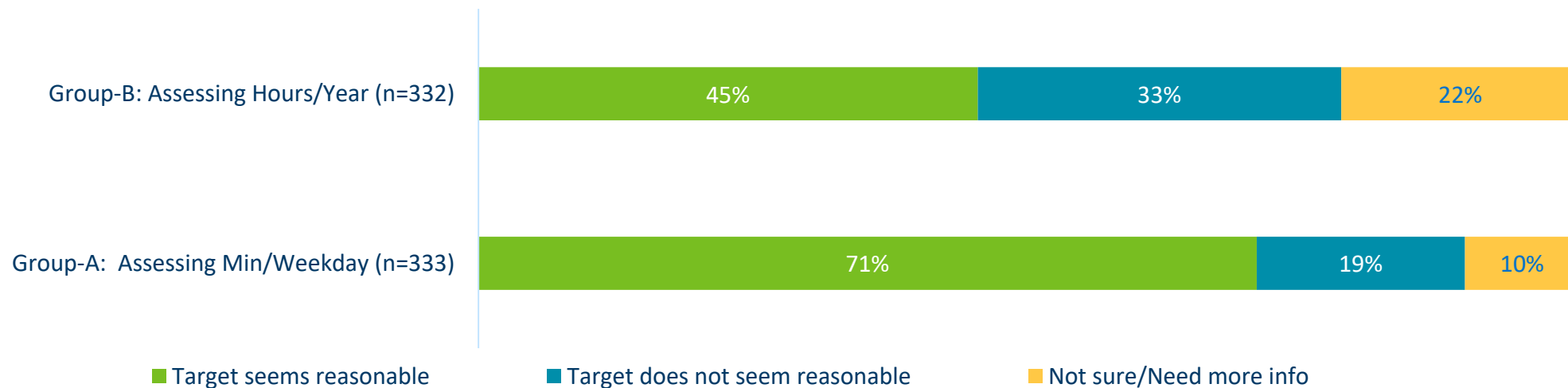
Based upon your top-of-mind reaction, how do you perceive this target?
(initial sample | first exposure only)



Those who were shown the delay in minutes in the second round were much more likely to find it reasonable

- This looks at perceptions for the 2nd exposure (showing the alternative metric), after already evaluating the initial one.
 - Those who saw 9 Min/Weekday after 40 hours/year were much more likely to find this level of delay reasonable than those who saw the metrics in the other order.

The proposed target could also be specified [y]. This would equate to an average of [z]. Assuming this is how the goal is described, what would your top-of-mind reaction be to this target?



Recruitment Input:

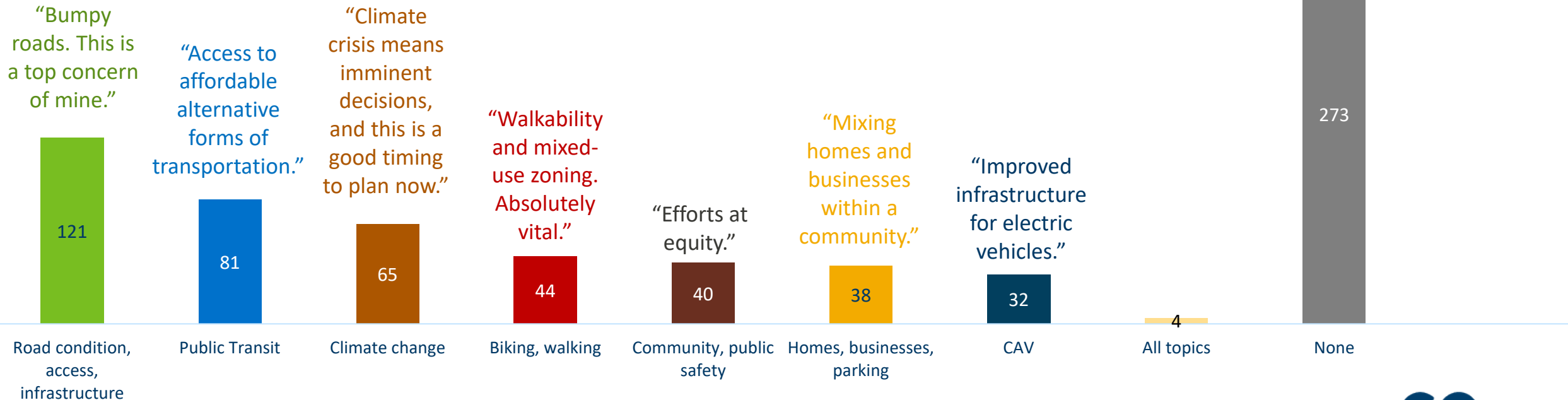
- ✓ Open-ended response
- ✓ Interest in being invited to the follow-up discussion

When asked what transportation related topics were of most interest to them, road conditions were the most commonly noted, followed by public transit and climate change

Most Interesting Topic Discussed in Survey
(coded open ended comments, showing counts (n))

The numbers shown on the charts are counts not percentages and each one represents less than 20% of the total sample.

NOTE: One comment could be coded in more than one category.



Discussion Board Interest

- Respondents were asked if they wanted to be invited to participate in a follow-up discussion on related transportation topics
 - About one-third expressed interest overall
 - The highest interest was among those under 55 and those who classified their race/ethnicity as being Hispanic, Black, Indigenous or Asian (including those that are multiracial and/or one of these races/ethnicities in combination with white)
- This was used to invite individuals for part-2 of this study. The results from that phase are summarized in a separate report.

Interest in Participating in follow-up	TOTAL	18-34	35+	18-54	55+	WHITE	NOT SOLELY WHITE	FEMALE	MALE	METRO	GREATER MN
Yes	34%	37%	33%	41%	23%	33%	42%	32%	37%	37%	30%
Maybe	21%	25%	20%	23%	19%	19%	26%	23%	19%	22%	21%
No	44%	38%	47%	36%	58%	48%	32%	44%	43%	41%	49%

Thank you!



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